

# University News

MONDAY, MARCH 1, 1993

Rs. 5.00

## TIET Convocation

From L to R : Dr. S.R. Gowariker, Director, Thapar Institute of Engineering & Technology, Dr. G Ram Reddy, Chairman UGC, who delivered the convocation address, Shri L.M. Thapar, President and Shri I.P. Anand, Chairman, Board of Governors of the Institute.



Recipients of degrees  
at the convocation

**SCHOOL OF CORRESPONDENCE COURSES  
ANDHRA UNIVERSITY, WALT AIR  
ADMISSION INTO B.A., B.COM. AND B.Sc. COURSES  
SUPPLEMENTARY BATCH, 1992-93**

The School of Correspondence Courses invites applications from the candidates residing in India for admission into B.A., B.Com. and B.Sc. degree courses for the academic year 1992-93 as Supplementary Batch.

The 1st year University Examinations for these candidates will be held in September/October 1993 and 2nd and 3rd year examinations will be held with a gap of one year each, thereafter.

**COURSES**

**ELIGIBILITY**

- |  |   |
|--|---|
| 1. B.A. (Both English and Telugu media) with the combination of Spl Telugu, Spl. English History, Economics, Politics, Public Administration, Sociology and Mathematics. | Intermediate/P U C or equivalent or pass in Entrance Examination conducted by this School |
| 2. B.Com (both English and Telugu media)   | Intermediate/P U C or equivalent or pass in Entrance Examination conducted by this School |
| 3. B.Sc (English medium only)  | Intermediate/P U C or equivalent with Physical Sciences and Mathematics                   |

Applications will be issued from 15th February 1993. Filled-in applications should reach the undersigned on or before 17th March, 1993.

Intending candidates may write to the undersigned by Designation for Application form and Prospectus by sending Rs. 20/- by Demand Draft, Money Order in favour of the Director, School of Correspondence Courses, Andhra University, Waltair-530 003. The candidates have to write their names, address and course for which they want the prospectus on the back of the D D or M O coupon whichever is applicable. The candidates may also remit cash at the CASH COUNTER of the School of Correspondence Courses, towards Application form and prospectus. Postal Orders and Cheques will not be accepted.

The prescribed application forms are also available at the following places on payment of Rs. 20/- through Demand Draft drawn in favour of the Director, School of Correspondence Courses, Andhra University, Waltair-530 003.

**OTHER PLACES OF SALE OF APPLICATIONS**

**(a) AT NEW DELHI :**

- 1) Sales Counter, Association of Indian Universities, A I U House, 16 Kotla Marg.
- 2) Sri Venkateswara College, Dhola Khuan, New Delhi

**(b) STUDY CENTRES .**

1) Government College, Srikakulam, 2) M.R.College, Vizianagaram, 3) Mrs. A V N College, Visakhapatnam, 4) Government College, Rajahmundry, 5) P.R. Government College, Kakinada, 6) Sri C.R. Reddy College, Eluru, 7) S.R.R. & C V R. College, Vijayawada, 8) A C College, Guntur, 9) D N R. College, Bhimavaram, 10) A B.M. College, Ongole, 11) Silver Jubilee College, Kurnool, 12) Indian Institute of Management and Commerce, Hyderabad, 13) A M.A.L. College, Anakapalle, 14) R.S.R.K.R.R. College, Bobbili, 15) Noble College, Machilipatnam, 16) V.S.R. & N V.R. College, Tenali, 17) Government Degree College, Narasannapeta, 18) S.G.S. College, Jaggaiahpetta, 19) S.S. & N College, Narasaraopet, 20) S K.B.R. College, Amalapuram, 21) V.R.S. & Y R.N College, Chirala, 22) V V & M College, Ongole, 23) Sri Sarvodaya College, Nellore, 24) K.B N College, Vijayawada and 25) B V.K. College, Visakhapatnam.

The School has no agents and takes no responsibility for prospectus issued and promises made for admission by any other institution.

WALT AIR,

PROF. V. ABRAHAM

DL 7-2-1993

DIRECTOR

**N.B. :** The Applicants should clearly mention in their requisition that they require "Admission Application Form for Supplementary Batch"

**Special Note for Successful candidates in the B.A./B.Com. Entrance Examination of December, 1992.**

Candidates who passed in the B.A./B.Com. Entrance Examination held in December 1992 need not apply for the admission application form and prospectus for admission into 1st year Degree Course. The School will arrange to send the admission application form and prospectus along with marks statement-cum-eligibility certificate to such candidates. They have to pay an amount of Rs. 20/- towards the cost of admission application form and prospectus along with the prescribed tuition fee at the time of admission. However, the duly filled-in admission application form along with the necessary enclosures including Demand Drafts/M O receipt towards prescribed fee should reach the School of Correspondence Courses on or before the prescribed last date.

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Editor :  
SUTINDER SINGH

## Unaided Professional Colleges in India

### An Identity Crisis

M. R. Kurup\*

There has been a lot of criticism about unaided colleges in Maharashtra, as in other States. Public interest activists, newspapers, educationists and even judiciary have roundly criticized these institutions on one account or another. Yet, people who are intimately aware of the financial crunch, which the education sector is facing, and also those who have studied in some of these institutions, appear to have some sympathy for these institutions. To many, "capitation fee" is either an emotional or a legal issue, instead of looking at it largely as an 'educational' or 'socio-economic' issue. There is, therefore, a need for closely examining the matter in its totality in the public and academic interest and to identify what exactly is wrong and where. Since the ongoing debate is about the engineering and medical institutions, we shall limit our analysis to them.

Like many other state governments, the Maharashtra Government decided in 1983 to permit unaided colleges both in general and professional education. Prima facie, the decision to depart from government aided to privately funded institutions, was based on an empirical fact that the demand for professional courses had been growing at a rapid rate and that the government found it increasingly difficult to finance such an expansion from the Exchequer. The capital outlay for an average engineering college, excluding land, is estimated to be around Rs. 5 crores, if it were to fulfil the conditions of affiliation as laid down by the University and the AICTE. This is particularly so with respect to college buildings, workshops, laboratories, equipments, furniture and fixtures, staff quarters, hostels for boys and girls, etc. on a minimum scale, with a provision for expansion over a period of time. Considering the cost of land in major cities, such an institution would have to also make provision for an equal amount, if not more, for land. Hence, a large number of professional colleges came up in satellite towns or mofussil areas where land is cheaper and available. Upto this point, there is absolutely nothing wrong with the policy.

#### Buchanan's Principle

If we apply the famous Buchanan's principle of "With and Without", we would unequivocally find that the student community would be much better off with new institutions than without them. Prior to 1983, there were just two government funded institutions admitting about 1000 students for the First Year Engineering in different subjects under the University of Bombay. Today, there are as many as 18 institutions, admitting nearly 8000 students to the First Year courses. This is true of all universities in Maharashtra and by allowing the private sector, the government saves nearly Rs. 100 crores of expenditure and, therefore, taxes. A similar arithmetic will hold good for medical education.

\*Principal, Kelkar Education Trust's V.G. College, Mulund, Bombay-400 080.

If these seats were not available, interested students would have gone to places where such institutions exist, or would have been forced to continue with general education against their will. In case any one wants to know the magnitude of frustration amongst the youth who could not secure a seat in a professional college, meet a group of First Year B.Sc students in a nearby college. It is well known that hardly anybody attends the lectures during the first few months of the new academic year as they would still be running around for admission to a professional course. For instance, out of 217 students who had actually taken admission for F.Y.B.Sc., in V.G. Vaze College, Mulund, during this year, as many as 110 have already cancelled it (and many more are waiting on the wings to do so) as on 30th September, having obtained admission in professional courses. A measure of demand can also be seen, once again from Vaze College, where out of 485 students who passed the HSC Science examination in June 1992, as many as 450 have left to take up one or the other professional course! This is true of all major colleges in Bombay. What would have happened to them had there been only a handful of aided engineering and medical colleges? More and more institutions imparting professional training are inevitable with growth of the economy and the middle class. The policy of caste based reservation has also been playing an important role in determining the demand for professional courses.

### What Went Wrong?

What went wrong in Maharashtra, however, is that adequate thinking had not gone into the government decision during 1983 or even thereafter, both at the government and the university level; nor had there been effective follow up, once the institutions were set up, which enabled the management of some of the institutions to indulge in exploitation. The authorities failed to correctly realize the ramifications of privately funded institutions, and erroneously equated them with publicly funded institutions.

A few issues could have been anticipated. Apart from the cost of infrastructure, what would be the deficit per student on revenue account for medical and engineering education? While the government is able to meet the deficit of the government managed and aided colleges by way of taxes on the general public, the private sector was not left with an access to any "ways and means" to meet its deficit, particularly when capitation fees and donations against admission have been banned, at least on paper. A professional college cannot be started by a group of socially conscious middle class people like starting a Commerce College, where the deficit per student may not be more than a few hundred rupees. Also, the criteria for admission to these courses could have been clearly spelled out. In the absence of a set of transparent guidelines, the private professional colleges provided an excellent op-

portunity for trading in unaccounted money. For some of the managements, it also gave a golden chance to mobilize and divert zero-cost working capital for their business enterprises.

Not all managements of private colleges can be bracketed as ruthless education-barons. Some of them have really created or are in the process of creating good educational infrastructure and their academic standard, as measured by the performance of the students at the university examinations, is quite good.

Unaided colleges represent an important departure from the traditionally accepted mode of the society bearing the cost of education. The society at large is justified in financing the primary-secondary education as the social benefit of this sector is very high. When one moves up from primary to collegiate, particularly the professional courses, the proportion of social-welfare content is progressively replaced by private benefit, which the society need not finance except for the weaker sections. A modified 'benefit-approach' of pricing social infrastructure is greatly appropriate here.

It is therefore time to re-examine the whole issues afresh. The government of Maharashtra has appointed a committee under the chairmanship of D.M. Sukthankar, an eminent administrator who was a former Education as well as Chief Secretary to the government, to examine various aspects of the working of these colleges. It is indeed an opportunity to examine the whole issue comprehensively in the interest of student community in particular and professional education in general.

Whatever be the nature of the institution, it is crucial to have an efficient and qualified faculty and adequate infrastructure to meet the challenges of higher education. There will never be a dearth of students, willing to pay large sums of money for admission, irrespective of academic standing of the institution. No one will even bother to find out whether the college is recognized by the MCI or AICTE or not.

It is equally important to realize that without substantial finance, creation of sound education infrastructure is just not possible. Then there is need for a regular source of income for meeting the working capital, such as salary and non-salary expenditures as prescribed by the university from time to time. The fundamental question that the critics failed to answer was that so long as these institutions cannot be run on a "no profit no loss" basis with resources from within, who will fund them, why and how? It is not our intention to justify the unethical practices followed by some of the unaided colleges. Exploitative and corrupt practices anywhere deserve to be roundly condemned and unaided colleges are no exception. Having broadly identified the issues, it is time to suggest a few remedial measures for consideration.

## **Remedial Measures**

The government managed and aided colleges may largely cater to the socially and economically weaker sections. In addition, a certain percentage of seats, say 15, in unaided colleges may be reserved for the socio-economically weaker sections, subject to a minimum percentage of marks (say 10 percent less than the merit cut off). Their fees may be subsidized by the government at par with aided institutions.

For generating internal resources, it is pragmatic to reserve 15 percent of the seats for the management for admission against subscription to the College Development Fund against proper receipt, which shall be utilized exclusively for meeting genuine financial and capital needs of the institution. An alternative to the contribution to the Development Fund is that they may be charged a higher fees as applicable to inter-state students, as at present. The differential fees may then be credited to the Development Fund. Here again, the cut off marks shall not be less than 10% of the general merit admission.

Out of the remaining seats, 90 percent may be filled in by students passing out from colleges in Maharashtra and 10 percent from outside the state purely on merit and at differentiated fees.

Once the criteria are laid down, the admission procedure at the institutional level should be transparent. One can also think of a common admission for all private unaided colleges in the state on the basis of a weighted merit-cum-choice index. This will also put an end to the flight of students from one institution to another. An institutionwise final list of students admitted may be published alongwith marks and other specifications like caste, etc. for the information of the general public, latest by 15th October every year.

It is also necessary to formulate proper and just rules and regulations regarding refund of fees, deposits and contributions to the Development Fund in case of cancellation of admission.

The Director of Technical/Medical Education should have a special cell under a Deputy Director to deal specifically with unaided institutions. The government may also nominate a representative on the board of management of these professional colleges, for supervision of academic performance and need based development of infrastructure. He will also be reporting and accountable to the government bodies regarding the functioning of the institution.

The government may give a lumpsum grant to the tune of 15 percent of per capita revenue cost of a general category student, to compensate for the social welfare component of education and the rest be charged to the student.

The teaching and non-teaching staff shall be appointed as per norms and salary paid through bank and appropriate provision made for service benefits like PF-Pension, etc.

In place of the defunct College Development Council, an active College Inspection and Development Authority be created with a full-fledged Director and adequate staff, at the university level, to monitor the fulfilment of affiliation conditions from time to time and for reporting to the university.

Let me conclude by drawing a parallel. The other day, a gentleman from the industry visited me for canvassing admission to a one-year Master of Computer Science (MCS) programme, of which six months will be in India and the remaining six months in one of the American universities. The fees for the course work to be Rs. 30,000 for the Indian segment and Rs. 4,00,000 for the half-year American segment! I have not heard anybody grumbling about the programme, as the whole package is looked at as a "business" proposition, and the promoters are well known private "entrepreneurs". The problem with an unaided professional "college" is that it is viewed as an "educational" institution and not as "business" organization. Even the promoters want the community to treat it as a purely educational institution. Thus, the crux of the problems lies in this "identity crisis". For an average Indian, education is still "charitable", and it is time to realize that not all education, particularly professional, need be charitable, and paid for through the Fisc.

## **SCHOOL OF PLANNING AND ARCHITECTURE NEW DELHI-110 002 (DEEMED UNIVERSITY)**

### **ELEVENTH CONVOCATION**

The Eleventh Convocation of the School of Planning and Architecture will be held on Wednesday, 10th March, 1993, at 4.00 p.m., at the Architecture Campus of the School.

Students eligible to receive degrees are requested to contact the respective departments.

**V.P. Raori  
DIRECTOR**

# Lala Lajpat Rai

## A Votary of Secular Values in National Education

Man Mohan Lal\*

Lajpat Rai is generally regarded as a freedom fighter of the top rank; his political views won acclamation of the nation and the world as well. What remained less known was his views on education. He was an active and enthusiastic educationist with his firm faith in nationalism as well as secular and scientific values which, he believed, formed the core of learning. In his opinion education could be neither communal nor chauvinistic. Study of international educational institutions, ideals and methods had been one of the passions of his life. His interest in western systems of education grew always in the perspective of the problems of Indian education. Mr. Rai had travelled far and had gathered considerable information about the problems of education European and American countries were facing in the beginning of the twentieth century. In these countries he had devoted a substantial part of his time and energy to the study of educational questions, always with a view to their adaptation to the needs of India.

The post-mutiny period of India may be regarded as the renaissance of learning and academic progress. This is the age when Swami Dayanand established the Arya Samaj which resumed, on the one hand, the *Gurukula* tradition of the old Indian educational system and, on the other, founded the Anglo-Vedic Colleges with a view to giving modern educational training to the Indians. The Theosophical Society headed by Mrs Annie Besant was no less sanguine about a uniform national system of education. Sir Syed Ahmed Khan realized his dreams of progressive Muslim nationalism by establishing the Mohammedan Anglo-Oriental College at Aligarh. He believed that the college would be able to impart a nationalistic vision of India to Muslim students so that they might find definite aim of life. The Central Hindu College at Varanasi owed its origin to this very age. With the establishment of these colleges, the idea of national education started gathering momentum. Although these institutions represented some specific communities of Indian people, yet in their relation to the British rule, they formed altogether a national representation. Their educational ideas were relative to the British system of education propounded by T.B. Macaulay.

Lajpat Rai was fully alive to this educational situation. 'It is quite true,' he said, 'that I am one of those persons who raised the cry of "national education" in

North India, so far back as 1883, and I have since then used it rather effectively for enlisting sympathy and collecting funds for the various institutions that were from time to time started to impart education on "nationalist lines" (Rai 1974:1). In the age of Rai national education aimed at freeing itself from the then governmental dominance. It was surely a step towards nationalism if an educational institution abstained from the government patronage and help. The British Government, as it seemed to the nationalists, represented anti-national power and therefore the *swadeshi* colleges, howsoever sectarian their founders might be, were considered ideal institutions. It is interesting to note that the term 'national' has undergone a change since Rai's time. The word 'national', in modern sense stands for something that belongs to India as a nation; it excludes all sectarian, communal and linguistic narrowness. Now the question is how far the old connotation of the word is acceptable in modern situation. From a broader viewpoint the nuances of the term 'national' may still be relevant. Rai seems to have agreed with Besant, though not without reservations. Mrs Besant's rhetoric sentimentality, in this connection may sound very appealing even today :

National education must meet the national temperament at every point, and develop the national character. India is not to become a lesser – nor even a greater – England, but to evolve into a mightier India. British ideals are good for India, we do not want echoes, nor monotonies, we want a choral melody of nations, mirroring the varied qualities of Nature and of God. Shall Nature show but a single colour, and trees, and flowers, and mountains, and sky wear but a single hue? Harmonious variety and not monotony is the mark of perfection.

(Quoted by Rai 7)

Rai knew well that the national mind was then in a fluid condition and, as such, needed wise and thoughtful guidance. He did reiterate the ancient motto of education – *sa vidya ya vimuktaye* but with his own interpretation. He believed the salvation lay in freedom from misery, poverty, disease, ignorance and slavery of every kind, "in this life, now and here for ourselves and hereafter for our successors." (Rai 9) He was against the religions that enjoined on their followers the duty of suffering all the pangs of misery, poverty, disease, ignorance and slavery, in order to have the certainty of bliss and happiness in the life to come.

\* English Department, Bharatiya Mahavidyalaya, Farrukhabad 209 625 (U.P.).



## Secular Values of Education

Lajpat Rai believed in balanced action; he hated dealing in high sounding words of philosophy and spiritualism. He was in favour of careful and critical consideration, as well as broad and thoughtful planning. Spiritual heights were not the ideals of his educational philosophy. In his opinion, negation of practical aspects of life, which is characteristic of all important religions of the world, cannot become the goal of education. He criticized Hinduism, Mohammedanism and Christianity from this very point of view. He believed that knowledge was universal and non-sectarian and therefore its pursuit was not possible along dogmatic lines of faiths and religions. As such, he laid emphasis on the secular aspect of education. He welcomed the *present* awakening in education and attributed it to researches and experiments carried out in Europe and America. He observed that education in these continents was getting more and more secular : "Sometimes I feel thankful for its very godlessness." Rai expressed his opinion without demur that the first need of India was the absolute destruction of the tendency towards the negation of life :

It is the fundamental basis of our whole national weakness.... The most important work before us then is to change the general psychology of people in this respect, to create in them an interest, a zest for real life. (Rai 1)

Perhaps this interest in life and abstinence from spiritual values have, at their root level, national obligations which seemed to be more demanding in an age when all patriots were looking forward to making a new nation full of prosperity and material wealth. Religious complacency was contrary to any such progress. There is no denying the fact that Lajpat Rai had not by then experienced anything like fanaticism or chauvinism or terrorism that was to shake the peace loving people to their roots afterwards. This three headed dragon was never so fierce and uncontrollable as it is in the last decade of the twentieth century. He could never foresee such hideous communalism. He wanted to modernize education in India. He realized the futility of sticking to the past. His suggestion to renovate education according to the modern needs is no less valuable today :

The attempt to live in the past is not only futile but even foolish; what we need to take care of is the future. If India of the future is to live a full, healthy and vigorous life commensurate with the importance which belongs to it by virtue of its human and other resources, it must come into closer touch with the rest of the world. If it is to occupy its rightful place among the nations of the globe, it must make the most effective use of its intellectual, mental and general human potentialities. (Rai 12)

## The Language Question

The language issue attracted special attention of Rai. In his view it was useless to continue ancient languages that were no more in use. He admitted that Sanskrit was a rich language and the literature it revealed was also superb; nevertheless, any attempt to make it a medium of general education and uplift was bound to fail and deserved to fail. He did not see a great difference between Sanskrit and Latin: both were obsolete. Their use was confined only to scholastic pursuits. Rai believed in the integrated culture of the world. What Aryans had initiated in human knowledge was further advanced by the succeeding generations of the world. The process of advancement had not ceased. There was nothing national or foreign in human knowledge. That took place in any country of the world became universal. Therefore there must not be any hesitation in borrowing or adopting ideas from foreign languages. A book dealing with sciences, Rai observed, became almost out of date within a year, unless new edition was produced with up-to-date improvements. "No one who does not want to fall behind others can afford to neglect these sciences, which can only be studied effectively for at least a number of years in these foreign languages." (Rai 13)

Apart from the scholastic and academic values, the most important aspect of foreign languages is their indispensability in international trade and diplomatic relations. Lajpat Rai was well aware of this aspect too. In this perspective he did not regard the learning of foreign languages as something optional. He visualized economic independence of India with the help of linguistic ability :

If India's trade and commerce are to be carried on by Indians and not by foreigners, and if the Indian people are to profit therefrom, it is necessary that our traders and commercial men should know as many modern languages as may be possible for them to acquire first in school and then out of it. The bulk of the nation must be engaged in agriculture, or manufacture, or business. For all these purposes a knowledge of the modern languages is almost a necessity. (Rai 14)

Although Rai was against devoting time to ancient languages of India, he was a great votary of modern Indian languages. According to him the study of foreign languages must be accompanied by a good knowledge of the modern languages of India. But at the same time he believed that provincial languages must not be made the medium of instruction. Perhaps he wanted to discourage linguistic regionalism and his conception about this threat to our national unity was clear enough : "It will be disastrous to our national unity to insist that education be imparted through local dialects. Nowhere in the world is that done, and we should look with suspicion at this suggestion from whatever quarter it

may come." (Rai 77). It was his firm belief that a national language of India was a must in order to keep the nation intact. Though in his opinion English should be compulsory in the second half of the elementary school period, he believed English to be a great hindrance in the speedy dissemination of knowledge. English, he said, should be compulsory only as a language and not as a medium of instruction.

### Nationalism through Education

It seems a paradox that on the one hand Rai regarded education and knowledge as universal and secular, he looked forward, on the other, to inculcating patriotism and national values through education. But his logic behind this hope was quite convincing. First he rejected the negation of life which is the ostensible goal of every religion. He could not share the age-old purpose of knowledge i.e. *mukti*, or salvation. The real salvation, he believed, lay in freedom from misery, poverty, disease, ignorance and slavery of every kind, in this life, now here for ourselves and hereafter for our successors. One may hesitate to give a materialistic purpose to education but Lajpat Rai was too honest and unassuming to give it any transcendental quality. If education fulfilled only the social and national demands, it was successful and need not go any further. Nationalism is a means of better life and happy society. Love for the nation not only ennoble us but also gives us a stimulus to action. Therefore Rai favoured inclusion of the active teaching of "patriotism" and "nationalism" as a regular subject of study.

Patriotism has been praised and criticized at the same time by politicians, moralists and anarchists. Political thinkers have warned frequently against the degeneration of patriotism into chauvinism. Since the beginning of the twentieth century patriotism has become a part of European education. Although the lessons teaching love of country were introduced in schools by Napoleon in the Post-Revolution France, patriotism has not yet been recognized as a subject. At the higher levels it has been criticized and discarded by Cosmopolitans like Bertrand Russell, E.M. Foster, and Tolstoy. These thinkers had already observed the terrible results of chauvinism and therefore they opposed any indoctrination of students' mind in the name of patriotism. Lajpat Rai was well aware of the extremities of nationalism, however he looked forward to a judicious and modest degree of patriotism in the future citizens of India. His philosophy of nationalism was formed in the specific perspective of India. He had foreseen the divisive forces that could render independence of India meaningless. These forces could be suppressed only by a positive force i.e. nationalism. He wanted to inculcate in the Indian students a feeling of fraternity and a spirit of loyalty to the geographical identity which history had given them. Rai's definition of 'nation' was purely geographical rather than political, racial or religious :

Every Indian child should be taught in so many words that every human being who is born in

India, or of Indian parents, or who has made India his or her home, is a compatriot, a brother or a sister, regardless of colour, creed, caste or vocation. The diversity of race, religion and language is often exploited by the foreigner as a pretext to deny us the status and the privileges of a nation. (Rai 59)

Perhaps Lajpat Rai agreed with John Dewey who allowed only a positive dose of nationalism to students: "The emphasis must be put upon whatever binds people together in cooperative human pursuits and results, apart from geographical limitations" (Dewey 1966: 98). Rai's nationalism was just different from the one Bertrand Russell attacked in vituperative terms. The nationalism Russell referred to was negative and based on the notion that the interests of one's country were naturally opposed to those of foreign countries: "boys and girls... are informed of the misdeeds of foreign States, but not of the misdeeds of their own State" (Russell 1980: 87). Never was Rai a supporter of aggressive patriotism; he was against spreading hatred among nations. He rather repudiated the German theory of the supremacy of the State over the nation (63). If his theory of nationalism was negative, it was only against the threats posed by internal disuniting forces like regionalism, communalism, language politics, and racialism. Rai respected all nations of the world. He welcomed ideas and virtues from whatever corner they came. Despite being a staunch supporter of patriotism in education, he was a great cosmopolitan and advocated the unity of the world. He looked forward to the oneness of humanity and the probability of world unity and a world culture (31). Therefore we should not misunderstand his idea of nationalism which was nothing more than a feeling that all Indians belonged to one common nation, one common heritage irrespective of the differences of language, religion and province. His advice to the future educationists is worth attention today when communal forces are bent upon distorting the facts of history to their specific motives. He laid emphasis on the "teaching of Hindu-Mohammedan unity which can be greatly facilitated by the writing of special and carefully worded theses on the lives of our national heroes. Lives of Shivaji, Partap and Govind Singh, as well as those of Akbar, Shershah and Shah-jahan must be carefully written. They should contain no untruths; they should be scrupulously true, but written from a broad, patriotic and national point of view. They should be a composite production of patriotic and scientific history" (62).

### References

- Dewey, John. *Democracy and Education*. New York: The Free Press, 1966.
- Rai, Lajpat. *The Problem of National Education in India*. New Delhi: Publications Division, 1966.
- Russell, Bertrand. *Education & the Social Order*. London: Unwin Paperbacks, 1980.



# Examining Examinations

## A Case Study of the University of Delhi

Madan Mohan\*

Any system of examination is good provided it is properly conducted and efficiently administered. As far as the University of Delhi is concerned, I would classify the system into the following four broad areas :

- a) *Preparation for Examinations* includes appointment of examiners, setting of question papers, their printing and moderation, supply of question papers at the examination centers.
- b) *Conduct of examinations* at examination centres which includes listing of candidates, distribution of candidates among examination centres, use of unfair means, mass copying, etc.
- c) *Secrecy work* of assigning fictitious roll numbers to scripts, evaluation of scripts, tabulation, moderation and publication of results and supply of statements of marks.
- d) *Miscellaneous* – evaluation of Ph.D. Theses, payment of remuneration to examiners, revaluation.

I have attempted to discuss each of the first three areas under the following three sub-heads :

- i) Undergraduate Courses – B.A. (Pass), B.Com. (Pass), B.Sc. (General) and subsidiaries.
- ii) Honours Courses.
- iii) Postgraduate Courses – M.A., M.Sc. and M.Com.

Professional courses like LL.B, M.B.A., Medical Sciences, etc. have not been touched on the assumption that each professional course has its own norms and requirements. But in general, I would suggest for consideration that the entire work of administering examinations for these courses be completely decentralised, especially in view of the fact that each such Faculty has been provided with the services of an Officer of the rank of Deputy Registrar/Assistant Registrar to assist the Dean of the Faculty/Head of the Deptt. If at all necessary, assistance of the Controller of Exams could be obtained for printing of question papers only.

### (a) Preparation for Examinations

#### (i) Undergraduate Courses

The question papers for undergraduate courses are set by Boards of Paper Setters and the same are not

moderated. For B.A. (Pass) and B.Com. (Pass) many question papers are set for each paper to be used as per requirement of the date-sheet, and separately for Correspondence Courses students, etc. to be examined in Delhi, outside Delhi (in India) and abroad. The final selection of a question paper to be used for any day and for any category is left to the Controller of Examinations. However, this is not being done for the B.Sc. (General) or Subsidiary for B. Sc. (Hons) Examinations. In the case of B.Sc. (General), the suggestion being made under (ii) below may be considered for adoption.

#### (ii) Honours Courses

For Honours Courses, generally only one question paper for each paper is being set, except for courses offered also by the School of Correspondence Courses where more than one question papers are set by individual paper setter and the question papers are moderated. In cases where one question paper per paper is set there have been allegations/rumours of leakage of question paper before examination and such insinuations are on the increase.

It is suggested that for each paper, not less than three question papers be set by a Board comprising not less than two persons. The final selection of the question paper to be used at the examination be left to the discretion of the Controller of Examinations. The question papers thus set be not moderated.

To avoid wastage, it could be considered whether the question papers not utilised could be entrusted to some publishers for printing and sale after the examination, to be treated as model question papers, for future years, and the University receiving part of the sale proceeds.

#### (iii) Postgraduate Courses

The present arrangement of setting question papers and their moderation for the postgraduate courses may continue, except in courses which are also offered at the South Campus. In papers which are offered at both the campuses, the same procedure as for setting the question paper for Honours courses as detailed in (ii) above may be followed with the condition that the Board of Paper Setters must include at least one teacher teaching the paper at each Campus.

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\*Former Registrar, University of Delhi.

## **b) Conduct of Examinations**

### *Undergraduate and Honours Courses*

Generally candidates belonging to a college, both for undergraduate and Honours courses, are assigned their own college as centre of examination. No doubt, such an arrangement presents difficulties and problems of various types. But we have also tried, in the past, the system whereby students of a college are assigned an examination centre other than their own college. Such an arrangement presented greater difficulties than the ones faced now and had to be abandoned. The invigilation work being a part of the duty of the teacher, the teachers of a college cannot be sent to another college to invigilate. Therefore, we are left with the only choice of assigning students of a college, their own college, as centre of examination, and they are invigilated and supervised by their own teachers.

In order that the present arrangement works more efficiently, instead of the present practice of a sending a team of observers to various examination centres area-wise, we should have a panel of observers prepared in advance and the observers be sent in their individual capacity to act as observers on day-to-day basis and stay at the examination centre for full duration of examination. In the event of observing any violation of prescribed procedures in conducting the examination, they should bring the same to the notice of the Controller of Examinations, on a prescribed proforma. All such complaints be placed before a two-member committee of senior professors of the university for looking into and resolving the same.

*Individual Copying* – To arrest use of unfair means by individual students during examination, all candidates should be subjected to physical search before entering the examination hall. There should be at least two invigilators in a single room irrespective of the number of candidates. Invigilation should be effective. There should be an insurance coverage for the invigilators and the other staff engaged in the conduct of examinations, both for injuries and death. After these measures have been taken the punishment for resorting to unfair means should be made more stringent than at present.

*Mass Copying* – To eliminate mass copying at examination centres, particularly receiving help by examinees from outside agencies during examination hours, the present arrangement of posting police personnel at examination centres may continue. In addition, the A.C.P. of the area accompanied by a senior person not below the rank of a Reader or a Deputy Registrar may take a round of the area where examina-

tion centres are located. In the event of any police official found wanting in the discharge of his duty, departmental action may be taken against him on a report to be lodged jointly by the A.C.P. and the university official.

### *Postgraduate Courses*

The present arrangement for the conduct of examinations at the postgraduate level may continue with the modification that the Roll No. Cards of the students belonging to the School of Correspondence Courses and the Non-Collegiate Women's Cell may also bear their photograph duly attested by the Head of the Unit in his own hand-writing, and not by using facsimile stamp.

## **(c) Secrecy Work**

### *Undergraduate Courses*

At present, the scripts of B.A. (Pass), B.Com. (Pass) and B.Sc. (General) examinations are not marked with fictitious roll numbers. The packets as received from the examination centres are addressed to the examiners with the result that it is very easy to know as to which script has gone to which examiner for valuation. Such an arrangement is also likely to create a bias in the mind of the examiner once he comes to know that the scripts being valued by him belong to the students of a particular college.

It is suggested that as in the case of Honours courses, the scripts of examinations of Pass courses may also be marked with fictitious roll numbers before being sent for evaluation. No doubt, this exercise involves tremendous work. But if our teachers can do this work on a much larger scale for another academic organisation in the city, it should not be difficult for them to do the same for their own university.

### *Honours & Postgraduate Courses*

The present arrangement of marking scripts of Honours and postgraduate examinations with fictitious roll numbers before evaluation is working quite satisfactorily and the same may continue.

### *Central Evaluation Versus Home Evaluation*

Some years back, we introduced the system of central evaluation for the Pass and Honours examinations. Among other things, it achieved the objective of expeditious publication of results with lesser number of discrepancies than before and the valued scripts being scored in an orderly manner to facilitate their future reference for evaluation, etc. It is not understood why this system was dispensed with. The matter needs to be re-examined. On balance the central evaluation has

more advantages and we should seriously consider re-introducing the same.

The evaluation of scripts of postgraduate examinations can also be done centrally in the department under the supervision of the Head of the Department himself or any other senior person so designated by the department.

#### *Tabulation of Results*

We should take the help of computers for all the examinations where the number of candidates involved is reasonably large. For other examinations, where the numbers involved are small, tabulators and scrutineers may be appointed, purely on merit, on the recommendation of the Controller of Examinations. The functions to be performed by the tabulators and scrutineers should be defined, demarcated and codified and the same should be followed and adhered to rigidly. There should be no overlapping of functions/responsibilities.

Similarly, the role of the office vis-a-vis tabulators and scrutineers particularly in the matter of final publication of results, should also be clearly defined and observed.

#### *Moderation of Results*

The moderation of results has to be more scientific and systematic. The scrutineers should place before the moderators full facts about the tabulated results viz. Pass percentage for the examination as a whole, subject-wise, paper-wise, examiner-wise, and the cases where performance of a candidate appears to be abnormal. The moderation committees should thoroughly probe into these facts and should not feel shy of resorting to revaluation of one or more scripts or the whole lot of scripts in case it is satisfied about the necessity of resorting to the same.

Quite often there has been delay in the supply of statements of marks to the students after publication of results. As far as possible, the statements of marks should be sent to the colleges/students simultaneously with the published results. However, in situations where it is not possible to do so, computerised lists indicating the detailed marks, prepared college-wise, may be supplied to colleges in respect of their students, to eliminate anxiety of students on this account.

#### *Evaluation of Ph.D. Theses*

Some years ago, time schedules were prescribed, for the committee of courses to meet after submission of thesis to recommend names of examiners, etc. for the

examiners to respond to the letter of appointment, period allowed for evaluation, etc. In case these time-schedules are strictly observed, there should be no difficulty in the timely publication of results of Ph.D. theses.

#### *Revaluation*

A suggestion to the effect that the revaluation may be done collectively by the teachers of the department on a specific day previously fixed is already on the university record and the same could be finalised and implemented to achieve expeditious results of revaluation.

The *modus operandi* of the suggestion is as follows : The office after sorting out the applications for revaluation should keep the scripts of a subject to be revalued ready by a particular date. Thereafter a group of teachers selected on the recommendation of the department may do the revaluation – first step and second step on one day in the university under the supervision of the Head of the Department or another senior person to be designated by the department. This would ensure random allotment of scripts for valuation as also the anonymity of the examiner doing revaluation work.

#### *Payment of Remuneration to Examiners*

There have been frequent complaints about delays in the payment of remuneration to examiners as also delays in making payment of examination centre bills so much so that in certain cases the examiners have insisted that they would not return current year's examination scripts unless their remuneration for the previous year is paid. This is unfortunate both for the university and the teachers taking such a posture.

To overcome this difficulty it is suggested that the part of the Finance Branch dealing with the work of making payments for examination work should be brought under the control of the Controller of Examinations and the Controller should be held responsible for such delays.

Ordinarily payments should be made as per norms laid down. However, in exceptional situations, the Controller of Examinations may be authorised to take decisions on the merits of each case. If in doing so, the financial implication involved is beyond a particular limit, he may consult the Finance Officer. In the event of difference of opinion between the Controller of Examination and the Finance Officer, the matter may be referred to the Vice-Chancellor whose decision should always be final.

# College Education in Andhra Pradesh

S.P. Gupta\*

P. Prakash\*

Andhra was constituted a separate state in 1953, on its partition from Madras and consisted of the undisputed Telugu speaking areas. To this region was added in 1956, the Telangana area of the former Hyderabad State. Thus Andhra Pradesh now consists of the coastal belt (Andhra), Rayalseema and Telangana. The Nizam had set up the Osmania University as early as 1918 with Urdu as the medium of teaching. The British Government set up the Andhra University in 1926. After Independence was set up the Sri Venkateswara University in 1954. However, many colleges of Andhra State remained affiliated to the Madras University for a long time.

All the three aforesaid universities had the object to effect reorganisation of the system of education in the state so as to develop technical/technological education and research in applied sciences, in addition to promote Andhra arts and culture. When Andhra Pradesh State came into being, it had been one of the first states to introduce 10+2+3 pattern of education. The number of colleges increased by leaps and bounds to more than four hundred (including 54 Oriental Colleges). Also during the period 1947-1990 as many 13 universities including a central university were set up in the state of Andhra Pradesh. As per the UGC Act, three institutions in the state have been accorded the status of "Institution deemed to be a University" and under an Act of state legislature, the Nizam's Institute of Medical Sciences has been conferred the status of a university. The state has the distinction of having the first Open University, first Technological University and the first University of Health Sciences in the country. It is again the first state to establish a State Council of Higher Education.

## Universities in Andhra Pradesh

University	Year of Establishment	No. of Colleges
1. Osmania University	1918	145
2. Andhra University	1926	114
3. Sri Venkateswara University	1954	69

\*University Grants Commission, New Delhi-110002.

4. Kakatiya University	1976	45
5. Nagarjuna University	1976	119
6. Sri Krishnadevaraya University	1981	25
7. Andhra Pradesh Agricultural University	1964	Non-affiliating
8. Jawaharlal Nehru Technological University	1972	"
9. Hyderabad University	1974	"
10. Open University	1982	"
11. Sri Padmavati Mahila Vishwa Vidyalayam	1983	"
12. Telugu University	1985	"
13. Andhra Pradesh University of Health Science.	1986	"

## Development of Colleges

At the time of formation of the state, there were 90 colleges of which more than half were colleges of general education and the rest professional and technical ones. Over the period of time the number has increased manifold. Colleges offering courses in arts, science and commerce continue to dominate the educational scenario.

As the nucleus of what was destined to be a vast university, the University College, Hyderabad was inaugurated in 1919 with Maulana Habibur Rahman Khan Sherwani (later, Nawab Sadr Yar Jung) as the first Vice-Chancellor of Osmania University. The college had in the first year 225 students in the Intermediate Class and 25 teachers. To look after the moral and intellectual interests of students, tutors were appointed from among the members of staff. Collegiate education in the erstwhile Hyderabad State was limited to the Osmania University and the colleges in the "Suba" centres at Warangal, Gulbarga and Aurangabad. Only the children of Jagirdars and privileged classes residing in the immediate vicinity of these centres had access to higher education. The fortunate few could afford the

luxury of sending their children to these centres of learning. Higher education thus remained an unfulfilled dream for the progeny of the common people, especially "the hewers of weed and drawers of water" in towns and villages criss-crossing the districts. With the dawn of Independence, the demand for education and the pressure of public opinion grew insistent. In the Hyderabad State the People's College of Arts and Science at Nanded was started under leadership of Swamy Ramanand Tirtha. In Telangana districts, Karimnagar displayed initiative in starting a drive for the establishment of a full-fledged College of Arts, Science and Commerce. Thus came into existence in 1956, the first affiliated college in Telangana district of Karimnagar. The college was named after deity of Vemulawada Sri Raja Rajeswara Swamy. On the same pattern colleges were established in other districts. Nagarjuna College at Nagonda, the College of Arts and Science at Siddipet, Girraj College at Nizamabad, S.R. and B.G.N.R. College at Khammam and the Science College at Adilabad thus came into existence.

As the popular demand for higher education gained momentum, more and more colleges were started throughout the state. Government College, Rajahmundry (estd. 1873), P.R. Govt. College, Kakinada (1884), Mrs A.V.N. College, Visakhapatnam (1879), M.R. College, Vizianagaram (1879), Govt. College of Education, Rajahmundry (1894), The Hindu College and Noble College, Masulipatnam, Sir C.R. Reddy College, Eluru, A.C. College and Hindu College, Guntur, S.S.B.N. College, Narasvopet, Govt. College Anamlapur, G.T. College, Madanpalle, S.V. Oriental College, Tirupati were the pioneer institutions of State that catered to women's education.

#### **Women's Colleges**

The Principal of the Nampally Girls High School, Hyderabad, Dr. Amina Pope, persuaded the university authorities and the government to approve higher education classes for women. Sir Akbar Hyderi and Sir Ross Masood, the DPI, lent their support. Accordingly, intermediate classes for women were first started in 1924, which were attached to Girls High School. At that time there were only 3 regular and 2 casual students. But this ultimately led to the establishment of a separate college. Science classes were added in 1932, with Urdu as the medium of instruction as in the whole Osmania University. The college (University College for Women) was handed over the palatial Hyderabad Residency by the government in 1949.

With the ever increasing demand for higher education for women, more and more colleges had to be set

up in course of time e.g. Ram Bahadur Venkata Rama Reddy College in 1954, St. Francis College in Secunderabad, Navjeevan College, Vanita Mahavidyalaya and the Nizamabad Women's College. When the state government instituted the scheme of free schooling for girls, there was a sudden spurt in the demand for women teachers. Several colleges came into being thereafter e.g. Govt. Women's College at Warangal and two private colleges for Women at Nizamabad and Khammam to name only a few.

#### **Coordination**

Admissions and appointments in colleges are generally governed by the rules laid down by the state governments. Coordination between colleges and the parent universities is done by the college development councils (CDCs). Each CDC coordinates with UGC and the State Council of Higher Education on matters concerning colleges in its university area. Andhra Pradesh State has the distinction of setting up the first State Council of Higher Education in the country viz. in the year 1988, in tune with the National Policy of Education (1986). It has been acting as a coordinating body with the varsities, state government, UGC, etc. Subject to satisfying the basic eligibility criteria of the university concerned, admission to undergraduate professional courses are made on the basis of merit at the state level common entrance tests conducted by the State Council of Higher Education for all the universities/institutes in the state. The State Council of Higher Education conducts State level common entrance tests for admission to the following courses in all universities of the state :

*Engineering* – BE./B.Tech./Agriculture (B.Ag)

*Medicine* (M.B.B.S.) – EAMCET.

*B.Ed.* – BEDCET

*L.L.B./B.L.* – LAW CET.

*B.E./B.Tech.* – Engineering entrance test for Diploma under ECET.

*Bachelor of Physical Education* – SPECET.

Admission to postgraduate courses (Non-professional and professional viz. M.Sc., M.A., M.Com., M.B.A., M.C.A., M.E. and M.Tech. etc.) are made as per merit at the qualifying examination/the entrance test conducted by the varsity/basis of performance in GATE.

The State Council endeavours alongwith other academic bodies to periodically review the course con-

tent and suggest modernisation of syllabi relevant to the changing societal needs and requirements. The council makes effort for maintenance of academic calendar in all the universities and colleges.

The curriculum of the first degree level provides an option for participation in NSS, NCC and sports and games. Students' attention is drawn in the aforesaid activities, by some incentives. Several colleges offer courses in some aspects of women studies.

#### **Old Institutions**

A brief account of old institutions as appears in the Madras University Centenary Vol. II.

##### ***Maharaja's Sanskrit College, Vizianagaram (1862)***

The institution was founded by H.H. Sir Vizarama Gajapati Raja, M.C.S.I., Maharaja of Vizianagaram about the year 1862 and was approved by the Madras University in 1911 for the Siromani (Mimamsa and Sahitya) and Vidwan Courses. Further approval was accorded in 1920 for the teaching of Indian Philosophy and Indo-European Philology. With the passing of the Andhra University Act the institution came under the control of that University in 1926.

##### ***Mrs. A.V. Narasinga Rao College, Vizagapatam (1878)***

This institution which was founded in 1860 by Sir Alexander Grant, Inspector of Schools, Mr. E. Fane, Collector of Vizagapatam, the Maharaja G.N. Gajapathi Rao and Mr. Chadika Venkateswara Naidu, was originally called 'The Anglo-Vernacular School', but when it was raised to the status of a second grade college and affiliated to the University in 1878, the name was changed to Hindu College. In 1892 the Late AV Narasinga Rao of Vizagapatam bequeathed a lakh of rupees, besides a Building Fund of Rs. 15,000/- for the college to be named 'The Mrs. A.V. Narasinga Rao College, Vizagapatam'.

##### ***Sri Venkateswara Sanskrit Vidyasala, Tirupati (1884)***

This institution was founded in 1884 by the late Sree Mahant Bhagavan Dossjee Varu and was known the Grant Duff's Sanskrit College. The name was changed later to Sree Venkateswara Vidyasala and was maintained out of Tirumalai-Tirupati Devasthanam funds. It was placed on a permanent basis by an Act of Government in 1914 and was approved by the University in 1920 for Nyaya, Vyakarana, Sahitya and Vedanta of the Siromani Course. The college was under the Andhra University from 1926 and was later re-affiliated to the Madras University in July 1930 on account of an amendment to the Act. When the Sri Venkateswara University was started at Tirupati in 1954, this institution went

under the control of the Andhra University as provided in the Act.

##### ***American Evangelical Lutheran Mission College, Guntur (1885)***

The American Evangelical Lutheran Mission opened an A.V. School in 1853, but closed the same for several years. The Mission re-opened the High School in 1874 and was affiliated to the University of Madras as a second grade college in 1885. It came under the jurisdiction of the Andhra University which was established in 1926. The B.A. class was opened the same year. The name of the College was changed to Andhra Christian College in 1928.

##### ***Madrasa Islamiah Arabic College, Kurnool (1887)***

This was founded in 1887 by the local philanthropists for providing elementary education to the Muslim boys of the town. It was converted into an advanced Arabic Madrasa in 1893 through the efforts of the late Moulana Sultan Ahmad, Rawalpindi. The college was approved by the university in 1922 for the Munshi-i-Fazil Course. When the Andhra University was inaugurated in 1926, the institution was automatically transferred to that University; but was re-affiliated to the Madras University from 1930 by means of an amendment to the Act. With the inauguration of Sri Venkateswara University in 1954, the College got transferred to the S.V. University in that year.

##### ***American Baptist Mission College, Ongole (1893)***

Mr Loughridge of the Baptist Mission began a secondary school in Ongole in about 1875. It was developed to the rank of a Secondary Grade institution by 1890 and was taken over by Government in 1893. In 1894 it was affiliated to the University for L.T. Degree Course and was placed under the supervision of the Principal of the Local Arts College. The L.T. Classes were removed from Rajahmundry and amalgamated with the Teachers' College at Saidapet in July 1911. In 1916, the Government sanctioned the re-opening of the college at Rajahmundry and the new training college was opened in July 1917. The affiliation of the college was delayed by the university for want of buildings; but the university agreed to grant exemption for the students to appear for L.T. examinations till the requirements were fulfilled. The college came under the jurisdiction of the Andhra University in 1926.

##### ***Sanskrit College, Tenali (1911)***

The college was established in 1911 by the public of Tenali including Messrs Pillutta Anjanaya Sastri (the then Dewan of Sanivarapeta Estate), M. Ragothamasastri and Chandiamouli Sastri and was approved by the



university in Vedanta Siromani and Vidwan (Sanskrit and Telugu) Courses in 1912. The institution came under the jurisdiction of the Andhra University when it was established in 1926.

*Andhra Girvana Vidyalaya, Kovvur (1912)*

The Andhra Girvana Vidyalaya was started in October, 1912 by Mr. Suryanarayana Rao, Pleader, Kovvur, with the object of resuscitating oriental culture and was placed under a Trust by the founder in 1914. It was approved by the university in 1920 to impart instruction in Vyakarana and Sahitya for the Siromani Course, and in Telugu and Sanskrit for the Vidwan Course. The institution came under the jurisdiction of Andhra University when it was established in 1926.

*Ceded Districts College, Anantapur (1916)*

After the passing of the Andhra University Act, the college became affiliated to that university in 1926. Consequent on the amendment to the Act in 1929 the college was re-affiliated to the Madras University in 1930. The college was granted further affiliation to the Madras university till the formation of the Andhra State when it was transferred to Andhra University in 1954.

*Venkatagiri Rajah's College, Nellore (1920)*

The institution was founded by the late Mr. Narayana-swami Chetti, B.A., Dewan of Vekatagiri, under the name of Hindu High School, in the year 1875. When it experienced financial stress, the late Maharaja of Venkatagiri came to its rescue with is munificence and since 1894 the institution had borne the name of its patron and progressed under his help. The School was raised to the status of a college qualified to give instruction in Groups, I, II and III of the Intermediate Course in 1920; but Group II was not opened for want of sufficient accommodation. It ceased to be affiliated to the Madras University when the Andhra University was established in 1926.

*Medical College, Vizagapatam (1923)*

The college was opened in July 1923 by the Government of Madras in response to the requests of the people of Telugu Districts, for providing facilities for study for the degree in Medicine. It was decided to utilise for the college the building originally built for a medical school, until suitable buildings could be erected. Affiliation was sanctioned in the first instance for the course of study for the first year of the M.B. & B.S. Course (Chemistry, Biology, Anatomy and Physiology). Further affiliation for the Second year of M.B.B.S. course was granted in 1925.

With the establishment of the Andhra University, the college was transferred to that University from 1926. At

present it is a fully developed Medical College with necessary buildings, laboratories and hospitals and it offers instruction for Postgraduate Courses for M.D., M.S., D.G.O., D.L.O., D.V., T.D.D., and Pharmacy Degrees, besides the M.B. & B.S.

*Narasimha Sanskrit College, Chittigudue, Masulipatam (1923)*

The institution was founded in July, 1923 by Sri S.T.G. Varadachari, M.A., in memory of his father, the late Sriman S.T.G. Narasimhacharyulu Guru, and was maintained out of the personal resources of the founder himself. It was affiliated to the University in 1923 for Siromani (Vyakarana), Vidwan (Sanskrit and Telugu) for the Proficiency Course in Comparative Philosophy. The college became affiliated to the Andhra University when it was established in 1926.

*Sri Venkateswara College, Tirupati (1945)*

This institution was founded by the Tirumalai-Tirupati Devasthanam Committee as a First Grade College and affiliated to the University of Madras. It started functioning in June 1945, as a temporary measure in the building of the Sanskrit College. The subjects in which affiliation was granted were Mathematics, Physics, Chemistry, Natural Science, History and Logic for the Intermediate fund for Mathematics, Philosophy and Economics for the B.A. degree course. The College ceased to be affiliated to the Madras University with the establishment of Sri Venkateswara University in 1954.

*Engineering College, Anantapur (1946)*

The idea of opening a new Engineering College in the Rayalseema was first envisaged in the Post-War Reconstruction Scheme and the government decided to open a college at Anantapur. For want of buildings, the college functioned at the Engineering College, Guindy, for two years as an affiliated college of the Madras University (July 1946 to April 1948) and moved to its premises in July 1948. This is a Government Institute.

Due to the formation of the Andhra State in October 1953, the institution was affiliated to Andhra University, and on the establishment of the Sri Venkateswara University, the college came under the control of that university from June 1954. Instruction was imparted in Civil, Mechanical and Electrical branches for the degree of Bachelor of Engineering.

*Osmania College, Kurnool (1947)*

This institution was established for the benefit of the people of Kurnool District in 1947 and was affiliated to the University of Madras as a First Grade College, with

effect from 1947-48 in the Intermediate, B.A. and B.O.I. Degree courses.

The college came under the jurisdiction of the Andhra University in 1954 consequent upon the establishment of the Sri Venkateswara University in that year by the Andhra State.

#### *Government Arts College, Cuddapah (1948)*

The college was started in July 1948 as a Second Grade College with History and Psychology under Part III of the Intermediate Course for the benefit of the citizens of Cuddapah.

The college was raised to the First Grade in 1951 with the affiliation in Group IV-b Economics and History. Teaching of Logic was taken up in July 1952.

Consequent on the passing of the Sri Venkateswara University Act in 1954, the college became affiliated to the S.V. University from July, 1954.

#### *Government Training College, Kurnool (1952)*

This institution was started in 1952 by Government for the benefit of the people of Kurnool District and was then affiliated to the University of Madras as qualified to prepare candidates for the B.T. Degree Course. It continued to be affiliated to the university till 1954, when the Sri Venkateswara University was established at Tirupati.

#### *Sri Venkateswara College for Women, Tirupati (1952)*

This institution was affiliated to the University of Madras with effect from the academic year 1952-53 as a Second Grade College to impart instruction for the Intermediate in Arts Course. It was managed by the Tirumalai Tirupati Devasthanam Committee. Consequent on the establishment of the Sri Venkateswara University in 1954, the College came under the jurisdiction of the Andhra University in that year.

#### **Present Status**

Though Andhra Pradesh is one of the educationally backward states, on an average the state has been adding 20 colleges per year. There is an uneven distribution of colleges in districts; the highest being 44 and lowest being 2 in the districts of Hyderabad and Ranga Reddy respectively. The minimum number of Government colleges in a district is 2 in Vizianagram and there is only one private college in each of the districts of Adilabad, Mahabubnagar and Srikakulam. The maximum number of Government Colleges is in Anantapur (12) and of private colleges in Hyderabad (39). The district of Ranga Reddy has no Government College

whereas Medak and Karimnagar have no private college.

Colleges in Andhra Pradesh present a wide diversity in their character in terms of facilities provided to students, quality of education imparted, infrastructure available for curricular, co-curricular and extra-curricular activities and their maintenance. Concomitant with traditional courses of sciences, arts, humanities, social sciences and languages, a special feature of college education in Andhra Pradesh is that there are varied courses leading to graduation viz. in Home Science, Nursing, Music, Dairy, Forestry, Homoeopathy, Ayurveda, Library Science, Journalism, Law, Oriental languages, Physical Education and Child Health. The Aurvedic and Homoeopathic Colleges are well facilitated with laboratories and attached hospitals. The Nature Cure Hospital in Hyderabad which therapies "Naturopathy" has a unique role in reviving the traditional methods of help keeping.

Considerable impetus has been given to higher education in the backward area of Rayalseema since the formation of A.P. in 1956. Owing to the liberal education policy adopted by the Andhra Pradesh Government on the one hand and the enthusiasm shown by the civic authorities and munificent educationists on the other, the number of colleges has grown steadily.

Even though many colleges have been set up, they are not adequately equipped to meet the educational needs of the students. A good number of colleges which were started in recent years are located in Junior College buildings, sometimes even in High School buildings without proper sites for the construction of colleges. In many cases the degree colleges work in shift with Junior Colleges so as to share the classrooms and laboratories. Some colleges were functioning in a kind of sheds. It impedes the possibilities of additional tutorial work, co-curricular and extra-curricular activities and physical education of the students.

#### **Autonomous Colleges**

Andhra Pradesh State has 23 autonomous colleges which fall under the jurisdiction of four universities (*See Annexure*). Eight of the autonomous colleges are exclusively for women. Nine out of ten autonomous colleges that fall under the purview of Osmania University are located in the twin cities of Hyderabad and Secunderbad. Initially, the autonomous colleges when established had only graduation courses. However, with advancement of time, the institutions were upgraded and had P.G. courses. The curricula and

syllabi of many courses offered in autonomous colleges are different from those of parent university. Many innovative programmes viz. Diploma and Degree courses with special subjects like Computer, Electronics, rural development and agriculture, applied nutrition, microbiology, child psychology and family relations, public administration, business management, etc. have come into existence in autonomous colleges. Many of the autonomous colleges have two languages (i.e. English and Telugu) as media of instruction with the exception of Anwar-Ul-Uloom Autonomous College, Mallepalli, Hyderabad which also has Urdu as the medium of instruction. Autonomous colleges are doing experiments in innovative programmes. A profile of one of the pioneer institutions in respect of innovative programme, Loyola Academy, is given below :

#### **Loyola Academy**

Loyola Academy was started as an experimental institution by the Society of Jesus in Secunderabad in 1976 in the field of Vocational Education, when the world was just coming into vogue in India. In 1978 a full-scale degree course, B.Sc. Chemical Technology, affiliated to Osmania University, was started. This syllabus devised by Loyola Academy, containing elements of internal assessment and semester system set the pattern for other degree courses which followed later.

Loyola Academy is officially declared an autonomous college from 1992-93 by the UGC. It has five specialised degree courses which came into existence at different times. They are :

1. B.Sc. Chemical Technology (1978)
2. B.Sc. Farm Science & Rural Development (1983)
3. B.Sc. Computer Science & Engineering (1988)
4. B.Com. (Hons) (1991)
5. B.Sc. Electronic Technology (1991)

There is a placement cell in the college, quite a few of their students find jobs, in mostly private firms, by the completion of the courses. There is also campus recruitment.

Such an experimentation provides a silver lining in the otherwise cloudy scenario of higher education in the country.

### **Autonomous Colleges**

#### **A. Osmania University**

1. University College for Women, Hyderabad.
2. Nizam College, Hyderabad.
3. R.B.V.R.R. Women's College, Hyderabad.
4. Anwar-Ul-Uloom College, Hyderabad.
5. S.S.R. Jyothi Arts & Science College, Khamam.
6. St. Francis College for Women, Secunderabad.
7. Pragati Mahayidyalaya, Hyderabad.
8. H.V. College of Arts, Commerce & Science Hyderabad.
9. St. Ann's College, Hyderabad.
10. Loyola Academy, Secunderabad.

#### **B. Andhra University**

11. D.N.R. College, Bhimvaram.
12. Sir C.R.R. College, Eluru.
13. Ch. S.D. St. Theresa's College for Women, Eluru.
14. S.R.V.B.S.J.B. Maharanee College, Paddapuram.
15. S.D.S. College of Arts & Applied Science, Shreeramnagar.
16. M.R. College for Men, Vizianagar.
17. St. Joseph's College for Women, Waltair.

#### **C. Sri Venkateswara University**

18. Jawahar Bharati, Kavoli.
19. Sri Padmavathi College for Women, Tirupati.
20. S.V. College for Men, Tirupati.

21. B.T. College, Madanapalle.

#### **D. Nagarjuna University**

22. Andhra Loyola College, Vijayawada.
23. P.B. Sidhartha College of Arts & Science, Vijayawada.

# University-Industry Interaction

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**Prof. G. Ram Reddy, Chairman, University Grants Commission, delivered the Convocation Address at the sixth convocation of the Thapar Institute of Engineering and Technology, Patiala. He said, "One of the serious complaints in India has been that the higher education sector and the industrial sector have worked in isolation from each other. In the university teaching and research there is not much input from outside. Similarly, industries are shy of making use of expertise available in the university system. This isolation has to end and the two sectors need to come together in their own interest and in the interest of the nation". Excerpts**

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Economic liberalisation has been taking place in India in a big way. This had naturally serious implications for higher education and the university-industry relationship. The Government announced the new industrial policy in July 1991 and thereafter it has taken series of measures to open up the Indian economy. The new economic policy makes substantial and fundamental changes in the process of socio-economic development; fiscal and monitoring policies and domestic resource allocation patterns. The accent is on de-control, decentralisation, foreign equity participation and the privatisation.<sup>1</sup> The new policy would throw up the Indian industry to outside investment and also technology collaboration. We now talk of market driven economy and integration with global economy. It means that Indian products have to be competitive in the international context and the quality of such products has to be of a high order.

All these years, the manufacturers and producers enjoyed a certain amount of protection and they concentrated on the domestic markets. There is no doubt that in some areas our industry has produced goods of high quality but in several other areas they cannot stand international competition. With liberalisation of the economy, the Indian industry will have to be strong enough to withstand the com-

petition from outside. As Dr. R.A. Mashelkar points out, "It is sad to see that barring a few isolated islands of excellence, our performance in engineering science has not been upto the mark... Unfortunately, the interface between science and engineering research as well as that between engineering research and engineering industry has been rather poor".<sup>2</sup> There is generally an erroneous impression that engineering research consists only of design development and aspects relating to production.<sup>3</sup> The fact that a close symbiotic relationship exists between science and technology and therefore, new concepts and new knowledge make a direct impact on engineering has been, by and large missed. It is obvious that in order to produce world class technologies not only do we require high class science, but also the level of originality and innovation in engineering needs to be comparable to that in the frontline scientific research, on which the regional interventions are based. Our engineering graduates, by and large have not been attracted towards engineering science. The reason is that there has been no demand for engineering scientists in Indian industry.<sup>4</sup>

Since Independence, India had developed a large infrastructure in education and industry. In higher education the system has grown enormously. In 1950-51 there were

30 universities and 750 colleges, and in 1991 there were 171 universities and 7120 colleges. The enrolment in 1950-51 was 2,63,000 which rose to 44,25,247 students in 1990-91. The number of teaching staff in university colleges was 14,291 in 1965-66 which has gone up to 58,661 in 1990-91. If we add the teaching staff working in affiliated colleges the number would further increase. The number of teaching staff in these colleges was 70,385 and it shot upto 2,04,446.

Similarly the industry has made rapid progress since Independence. The industrial sector consists of large, medium and small industries. Both public and private industries have played a significant role in the development of the country.

One of the serious complaints in India has been that the higher education sector and the industrial sector have worked in isolation from each other. In the university teaching and research there is not much input from outside. Similarly, industries are shy of making use of expertise available in the university system. The isolation has to end and the two sectors need to come together in their own interest and in the interest of the nation.

It is said that higher education is the engine which drives development. The National Policy on Education - 1986 has observed that "Higher education provides people with an opportunity to reflect on the critical, social, economic, cultural, moral and spiritual issues facing humanity. It contributes to national development through dissemination of specialised knowledge and skills. It is, therefore, a crucial factor for survival".<sup>5</sup> It is in the interest of the university system to interact closely with industry. Its curricula should take into account the needs and requirements of the industry. The students need to have some hands on experience while they are doing their courses in the universities. Some time ago, we had a meeting with a few industrialists in Baroda and the topic of discussion

was "University/Industry Collaboration".

The main complaint of the industrialists was that what was being done in the university system, whether teaching or research, was not relevant to them. When they employ products of the university they have to spend another year or so in training the students so that they could meet their requirements. Industrialists consider this a waste. Similarly, they find that the research concerns of the university system is not in congruence with their needs. They were also not confident whether they could use the university scientists in consultancy work, for they feel that the orientation of the university academics does not suit them.

Professor William Gouse, an American Engineer-Scientist, who visited this country a few years ago expressed surprise when he looked at the work being done by the IITs. He said: "The laboratories of these institutes are well-equipped. They have highly qualified faculty members and very good students. The teaching that goes on is of a higher quality. But what fills me with despair is the thought of how little all that goes on inside these institutes has relevance to the immense problems faced by the country and its people."<sup>6</sup> Relevance, as Professor Sampath says, should be the corner stone of the process of education and training.

What applies to the university system applies equally well to the industry. There are several success stories now in the industrial field. But the industrial production has been on the basis of imported knowhow which has come in the form of packaged hardware and unabsorbed black boxes. The large base of our industry owes its size to our large markets and it can take little credit for opening up new markets through new products. For example, we are among the largest producers of bicycles, fans and sewing machines in the world and yet we have seen no

improvement in any of these, writes Mashelkar.<sup>7</sup>

Some interaction between university and industry is taking place in the country today. A study conducted by the Association of Indian Universities in seven universities reveals that the seven universities had 116 interactions. Their interaction could broadly divide into four categories – general research support, cooperative research, knowledge transfer, and technology transfer. The study reveals that there have been a total of 426 ongoing interaction programmes of which 60% were initiated by the universities. Out of a total of 254 university initiated programmes, 174 were in the knowledge transfer areas, followed by areas of cooperative and general research support, i.e., 45 and 30, respectively. Industries initiated 17% of the total collaboration programmes covered by the study. Out of these, 50 programmes were in the knowledge transfer category, followed by categories of cooperative research support (14), general research support (8), and technology transfer (1). About 11% of the total interaction programmes were initiated mutually by universities and industries while the remaining 12% interaction programmes occurred because of universities having prior relationship with industries and vice-versa.<sup>8</sup>

In the West it is very common that universities and industries collaborate very intimately. Professor Nigam refers to a 1982 meeting of representatives from Stanford, Caltech, U.C. Berkeley, Harvard, MIT and industry in Pajaro dunes, California to examine the question of interaction between the two sides. It is interesting to know that at the end of the conference the participants came to the conclusion that contractual arrangements can be developed that will permit private sponsorship of research in the university. Terms can be worked out to the satisfaction of both the sides.<sup>9</sup> Virtually all academic R&D in the United States is carried out in about 185 doctorate

granting universities. The top 100 of these (here called research universities) receive 85% of the federal R&D funds and the top 10, about 25%. The remaining institutions of higher education (some 2900) are vital to the health of R&D universities and the nation because they educate about 75% of all undergraduate students although virtually no research is centred there.<sup>10</sup>

One must keep in mind, writes Leitmann, that a productive and profitable industry-university relationship rests on continuous supply of new knowledge and well-educated engineers and scientists with an entrepreneurial spirit together with "grass root" contact between industry and university researches.<sup>11</sup> A technologically literate public together with technologically literate politicians, is essential for the intelligent use of high technology in society.<sup>12</sup> The fact is that the university-industry interaction is on a back burner in this country. It is admitted by many that this segregation must end and several seminars have been held on the subject. But the progress in the direction of university-industry interaction is very slow and halting. Such interaction has not become a common feature of national life. There is a mutual suspicion and lack of trust in each other. This has to end

Professor Sampath quotes with approval what Professor Douglass Wright, President of the University of Waterloo, Canada, had said: "It is myopic and even dangerous to regard universities as remote ivory-towers. It is equally a trivialisation of the potential of the university to regard it as standing in relation to industry as a supplier to a client, producing graduates and research results on order."<sup>13</sup> I quote these words because at a recent meeting convened by the Andhra Pradesh Research Council where industrialists and academics were present, one of industrialists said that interaction between the industry and universities is possible only when the latter

goes to them and tells them what they have to offer. He said : "You have to come to me and tell me what you have to offer. You have to convince me that what you have to offer is useful to me". This, I thought, was a very short-sighted and an unenlightened approach because of the statement's smack of arrogance and contempt for the universities. The relationship between the industry and academia should be one of mutual respect and partnership. If the industry feels that they can exist without the academia they are not being far-sighted and realistic. If the universities are weak, in the long run the industry also would be weakened.

The progressive industrial houses like the Thapars, the Tatas and others have evinced interest in bringing higher education closer to the industry. Now they need to be a little more aggressive in promoting

such collaboration. Experience has shown that education has responded favourably to such initiatives. Similarly, higher education should cast off its "cloistered nun" approach and go forward and change its orientation of teaching and research to accommodate the needs of the industry. We need to make continuous and vigorous efforts to bring the industry and institutions of higher education together. *Laxmi* and *Saraswati* should come closer to each other – only then can there be substantial progress in the country. But, as we all know, *Saraswati* is a little shy, and I expect *Laxmi* to take the first steps in this direction.

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## CALENDAR OF EVENTS

Proposed Date of the Event	Title	Objective	Name of the Organising Department	Name of the Organising Secretary/ Officer to be contacted
May 25-27, 1993	Sixth Annual Conference of the All India Association for Educational Research	Theme Research in Educational Management	All India Association for Educational Research in collaboration with St Ann's College of Education, Mangalore	Dr (Sister) Lydia Fernandes A C , Principal, St Ann's College of Education, Mangalore
1st Week of June, 1993	Annual Conference of Indian Academy for Instructional Planning	Theme Instructional Planning – an educational rethinking	Pravara Rural College of Education, Pravaranagar, Dist Ahmednagar	Dr P L. Kirkure Secretary, IAIP, BEd College Loni (Pravaranagar) Dist Ahmednagar-413712
December 14-16, 1993	1993 Annual Conference of the Society for Research into Higher Education	Theme Governments and the Higher Education Curriculum. Evolving Partnerships	Society for Research into Higher Education, London	Prof Tony Becher, EDB, University of Sussex, Falmer, Brighton BN 1 9RG



## Foundation for R&D Funding

A "National Debate on a National Crisis" was recently organised by the Jawaharlal Centre for Advanced Scientific Research (JNCASR), Bangalore. Eminent scientists expressed concern over the declining government support for science and technology and called for inclusion of these areas in the national developmental agenda. They regretted that "wrong sounds and noises" were being made at a wrong time vis-a-vis the fiscal support from government for science and technology. While countries such as Japan were doubling investments in these fields, the budgets of research institutions in India were being pruned so much so that adequate funds were not available even for infrastructure development and purchase of equipment and journals, they added.

Speaking on "The crisis in Indian science and technology: Some crucial factors for consideration," Director of Indian Institute of Science (IISc) and JNCASR President Prof C.N.R. Rao said the government should step up investments in higher education and science and technology and involve institutes such as the IISc and the Indian Institutes of Technology (IITs) in national development.

Regretting that allocation for science and technology was less than one percent of the country's gross national product (GNP), Prof Rao said the government should find resources to keep the R and D efforts going at the present pace. He suggested "selective funding" of projects in crucial areas of science and technology if the government could not mop up adequate resources for the entire sector.

Stating that the support from the Indian industry for R and D projects

so far was negligible, he said the industry should take funding of the projects as a "crisis operation".

He said the country could not afford to stay "loan happy" as its vastness demanded meeting the requirements in "tonnes and crores." The country should shed the habit of borrowing and make best use of the vast trained human resources and intellectual capacity for generation of funds. He called for immediate funding of projects in areas such as communication, transport and energy.

In his address on "new role of publicly funded R and D institutions in post-liberalisation era" National Chemical Laboratories (NCL), Pune, Director, Dr R. A. Mashelkar, said the government was willing to pump crores of rupees to revive or rehabilitate sick industrial units, but was asking the R and D organisations to pay the water and electricity bills from the industrial earnings.

Dr Mashelkar said the Indian industry had viewed R and D organisations as "supermarkets" where innovative technologies could be picked from the shelf. In addition, a majority of the industrial houses which recorded a turnover of over Rs 1000 crore invested only 0.2 to two percent in R and D. While there was a need for the industry and R and D laboratories to change their culture, the government should create the necessary environment for industrial growth and competitiveness. The steps he suggested included reintroduction of fiscal incentives for undertaking R and D which were withdrawn in 1985, allowing R and D companies to be promoted as commercial ventures

without tax liabilities, and making income from technology taxfree.

He said the Council for Scientific and Industrial Research (CSIR) should adopt a new culture in the wake of the changed economic scenario and adopt several bold measures such as offering technology against equity participation, establishing commercial arms to market technologies, products and services, and setting up consultancy wings in India and abroad.

Mr Hasmukh Shah, Chairman of G. E. Plastics India Ltd, who spoke on "globalisation – an entrepreneur's point of view" said the industry would require the support of R and D laboratories now and in future for choosing appropriate technology. The government, however, should create the necessary environment for setting up a foundation to fund R and D efforts. The industry and state governments were under constant pressure to develop infrastructure and undertaking social projects such as hospitals, roads and other amenities. The R and D units could also provide the industry with innovative ideas for generating resources, he added.

Dr S. Raha, chief executive of the International Chemical Industry (ICI), New Delhi called for changes in the Indian Patents Act while speaking on "India's stance on intellectual property rights: Some suggestions for a new strategy". He said the act was appropriate in the 1970s, but was of little importance as the world was moving into a new era of market driven economy. The R and D laboratories should concentrate on development of market oriented technologies in areas such as chemical engineering, textiles, pharmaceuticals and natural products.

## **Coaching for Competitive Exams**

Mr. C. Ramulu, Director of Backward Classes Welfare, Government of Andhra Pradesh, said that the State Government would consider the proposals for financial assistance to the Kakatiya Adhyayana Kendram of Kakatiya University to improve and strengthen the coaching facilities for civil services examinations to the candidates belonging to the weaker sections of the society. He was inaugurating the pre-examination coaching programme for Civil Services (Preliminary) Examination 1993 of the Kakatiya Adhyayana Kendram at Kakatiya University recently.

Mr. Ramulu said that the Government was committed to the upliftment of the weaker sections and the Study Circles were necessary to enable the weaker sections to enter into civil services. The Government had taken care to see that the weakest among the weaker sections enter into civil services by competing with the upper strata or 'creamy layer' among the BCs, SCs and STs.

Mr. Ramulu called upon the weaker sections to join in large numbers and avail themselves of the coaching facilities provided by the Study Circles even amidst inadequate facilities of accommodation, etc.

Dr. K. Jayashankar, Vice-Chancellor of the Kakatiya University, who presided, said the university would be pleased to provide land if the Government came forward with necessary financial assistance for the construction of a separate building for the Kakatiya Adhyayana Kendram. Dr. Jayashankar assured all possible help from the university for any innovative venture if it was directed at improving the skills of the candidates of weaker sections.

Mr. J. Yellaiah, Director of the Adhyayana Kendram, in his report, said that established in 1985, the Kendram had registered an impressive progress in imparting the pre-

examination coaching for various competitive examinations to weaker sections viz., BCs, SCs and STs and added that the results were quite encouraging.

Prof. V. Bhaskara Rao, Member, Board of Management and Principal, University College, exhorted the candidates to make use to the facilities available to them to the fullest possible extent and come upto the standards expected of them.

## **Lohia and the Present Crisis**

Shri Dhanik Lal Mandal, Hon'ble Governor of Haryana and Chancellor, Kurukshetra University, recently inaugurated a two-day National Seminar on "Relevance of Dr. Ram Manohar Lohia's Ideas Today" organised by the Department of Political Science of the university. In his address Shri Mandal stressed upon the redefinition of the concept of secularism as the country was facing a challenge to its secular ethos. He viewed that this could only be done through the study of Lohia's world vision. Lohia's views may not be conclusive, but they certainly throw light on different facets of various problems. An analysis of these could contribute in finding a definite solution, he opined. He also expressed the views that the present problems could be resolved by a synthesis of the best ideas from all religions.

Dr. S. Arya, Vice-Chancellor, in his welcome address said that Lohia was a multifaceted personality who had expressed his thoughts on various aspects of Indian political and social systems. He felt that an indepth understanding of Lohia's vision might give us a ray of hope for solving certain complex problems of contemporary times.

In his keynote address, Professor Parimal Kumar Das of Jawaharlal Nehru University, New Delhi observed that Lohia's ideas on religion were not in the orthodox terms. His religion was to help humanity at large. He argued that if we had understood Lohia properly

and applied his vision of religion and politics, then the contemporary communal crisis could be resolved amicably.

Shri Ladli Mohan Nigam, a close associate to Dr. Lohia, apprised the participants with the views of Lohia on culture, democracy and environment. He felt that Lohia not only cherished noble ideas but also put them into action. Consequently, Lohia was still relevant in understanding political, economic and social life of India.

Professor Ranbir Singh, one of the Directors of the Seminar, observed that the ideals of democracy, secularism and socialism were being challenged by the forces of fascism, fundamentalism and neo-imperialism. This had endangered even the sovereignty and unity of the country. At this juncture, study of Lohia, who had given us an indigenous model of development, becomes relevant, he said.

The participants at the seminar included political scientists, social activists, politicians, literary critics and eminent Lohiaites.

## **Vizzy Trophy**

The Inter-Zonal University Tournament for Vizzy Trophy was recently organised jointly by the AIU and the Board of Control for Cricket in India (BCCI) at Madras. South Zone regained the trophy by defeating West Zone by 267 runs. The Scores were : South Zone - 1st Innings : 321 runs; 2nd Innings : 349 runs; West Zone - 1st Innings : 184 runs; 2nd Innings : 219 runs. The trophy was presented to the winning team at a function held in Madras recently by Mr. Ashok Kumbet, Treasurer, Tamil Nadu Cricket Association. Dr. G.P. Gautam, Deputy Secretary (Sports), AIU, presided over the function.

The Vizzy Trophy is instituted by the BCCI to commemorate the memory of Dr. Vijay Anand, Maharajkumar of Vizianagaram, popularly known as "Vizzy". It is awarded every year to the winning team in the Inter-Zonal University Tournament.

### Agroclimatology and Sustainable Agriculture

Sound policies to protect the resource base, which is the foundation for sustainable agriculture, are needed to increase the productivity in stressed environments, said Dr. Har Swarup Singh, Indian Ambassador to Maldives. He was delivering the keynote address at the inaugural function of a six-day international symposium on Agroclimatology and Sustainable Agriculture in stressed environments organised recently in Hyderabad by the Indian Council of Agricultural Research (ICAR), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), and Soil Management Support Services of the USAID.

Dr. Singh said the task of increasing the productivity of drylands was difficult, but not impossible. It could be achieved with the backing of good policies.

"The concept of sustainable agriculture looks sound, but it requires capital investment, which the dryland farmers could not afford. In order to increase the income of the dryland farmers, other non farm economic activities will have to be integrated into it," he pointed out. He further stressed that environment was the underlying consideration for all developmental activities, and conservation of natural resources such as soil and water should be given the due importance.

Dr. I.P. Abrol, Deputy Director-General, ICAR, in his opening remarks pointed out that new strategies should be developed and the best of existing techniques employed to manage the natural resources that were crucial for achieving sustainable high yields from drylands. "We are faced with the serious challenge of growing more food from the shrinking land resources. Much of the foodgrains would have to come from the drylands which account for

about 65 percent of the arable lands in the country, he said.

Dr. N.C. Brady, Consultant for the International Fund for Agricultural Research of the UNDP, outlined the perspectives on sustainable development with particular emphasis on human resource development coupled with institutional development.

Dr. R. D. Plowman, Agricultural Research Services, U.S. Department of Agriculture, said that agriculture in stressed environments was not the problem of developing countries alone, and even advanced countries were faced with low productivity from such regions. He emphasised the need to arrest soil erosion and harvest and conserve water to increase the productivity of the rainfed farms.

Dr. Hari Easwaran of the Soil Conservation Services, USDA, while highlighting the challenges of doubling the foodgrains output without endangering the ecological base said the indigenous agricultural practices, which were sustainable farming systems, should be identified, and the traditional wisdom should be blended with modern scientific knowledge.

Dr. V.L. Chopra, Director-General, ICAR, speaking on the sustainability research in the country, said that monetary constraints and social compulsions on the part of dryland farmers hampered the technological adoption in rainfed agriculture. The rich traditional wisdom possessed by the dryland farmers should be put to the best possible use to increase the production through a sustainable development pathway, according to Dr. Chopra.

Dr. J.G. Ryan, Director-General, ICRISAT, presenting an overview of ICRISAT's approach to sustainable agriculture, called for a major inter-

national initiative to protect the fragile ecosystem of the semi-arid tropics. In order to meet the challenge of producing more food and feed, he said enormous pressure is put on the rain fed farms, and this could result in the degradation of this resource base.

About 110 eminent scientists from all over the world participated in the symposium. Vice-Chancellors of many Universities also participated.

### IARI Convocation

Mother Teresa called upon agricultural researchers to help the poor with their knowledge so that the poor can get at least two square meals a day. She was speaking at the 31st convocation of the Indian Agricultural Research Institute (IARI) held in New Delhi recently.

Addressing the researchers, she hoped that they would make practical use of their knowledge which she considered a gift of God. "Put your knowledge into life so that the poor can enjoy its fruits. Give peace and joy to the world by understanding and love. Let us work together and help the poor," she appealed.

Besides conferring degrees of Doctor of Philosophy to 104 students and of Master of Science to 53, she gave away the degree of Doctor of Science to Dr. A.B. Joshi, a scientist and educationist and also an alumnus of the institute, having received the Associateship Diploma in 1989.

The Hooker Award, which is given once in two years for research work in agriculture, animal husbandry and fisheries, was given to Dr. C.L. Acharya, chief scientist of Himachal Pradesh Krishi Vishwa Vidyalaya, for 1990-91. The Dr. S.S. Bains memorial award was given to Dr. A.V. Solanke who is a lecturer in the Miland College of Science, Aurangabad.

Releasing the nine crop varieties including a new hybrid tea rose variety named after Benjamin Pal

and a publication on internationally recognised important plant "Neem", Agriculture Minister Shri Balram Jakhar urged the scientists to go into the fields and work there. He said the scientists needed to rub shoulders with the farmers, to make production successful.

He urged the public and private sectors to join hands so that production could be increased in all States.

Stress cannot be put on just three States – other States also should help in increasing production, he said. He was of the opinion that the Krishak Vikas Kendras which had already been established in some States, should help the farmers in educating them on the latest technology.

He emphasised that those who work harder in the fields should be given incentives. He said those students who had land should instead of seeking government jobs, work in the fields and do some practical

work. By seeking employment in Government there was an "unnecessary surplus" in Government offices, he added.

Regarding the Dunkel proposal, he lamented that people criticised it without understanding the scheme. He categorically said that the Government would not compromise on any proposal if it said that the seeds of Indian farmers would not be used. He was of the opinion that every proposal had to be in the interest of the Indian farmer. "It cannot be a one-way traffic; it has to be a two-way traffic – otherwise the Government would not be a party," he added.

Mr Jakhar was also of the view that Finance Minister should reorient policies in favour of the farmers. He felt there was need to protect the rights of the farmers.

The Dean of the IARI, Dr. N.N. Goswami, and Director S.K. Sinha also spoke on the occasion.

## News from UGC

### Countrywide Classroom Programme

Between 15th March to 20th March, 1993 the following schedule of telecast on higher education through INSAT-1D under the auspices of the University Grants Commission will be observed. The programme is presented in two sets of one hour duration each every day from 1.00 p.m. to 2.00 p.m. and 4.00 p.m. to 5.00 p.m. The programme is available on the TV Network throughout the country.

#### 1st Transmission

1.00 p.m. to 2.00 p.m.

#### 15.3.93

"The Origins of Quantum Theory : From Planck to Bose – IV Satendranath Bose"  
"Management Functions and Behaviour : Communication Process"  
"Fresh from your Garden"

#### 16.3.93

"Guar – An Old Crop with New Uses"  
"Ways of Thinking – II. Contours of Time"  
"Management of Simple Childhood disorders"

#### 17.3.93

"Images of Bats"  
"Orchid – The Royal Plant"  
"Eyes in the Sky – Remote Sensing – II"

#### 18.3.93

"Understanding Transistor Radio Receiver – II"  
"Glimpses of Girasia Life – II"  
"19th Century Russian Literature : Nikolai Alexevich Nekrasov"

#### 19.3.93

"Media and Aggression"

"By the People – VII. Using Legal Assistance and Using Government Agencies"

#### 20.3.93

"The Roorkee Hat"

"Islamic Calligraphy through the Ages – II"

"Week Ahead"

#### 1st Transmission

4.00 p.m. to 5.00 p.m.

#### 15.3.93

"Facing the Future – II"

"Of Figures And Columns The World Of Chartered Accountants – I"

"Human Resources Management"

#### 16.3.93

No Telecast

#### 17.3.93

"Tentmaking Bats"

"Fastening Devices"

"The Great Pyramid A Tomb or an Observatory"

#### 18.3.93

"Carbon Flies"

"Colourful World Of Minerals"

"Brain And Language Problems : Aphasia"

#### 19.3.93

"Statistics – Stratified Random Sampling – II"

"Wind Surfing"

"The Week Ahead"

#### 20.3.93

No Telecast

### CSIS Chair in Indian Studies

The Centre for Strategic and International Studies (CSIS), Washington (USA), a leading and influential think tank, is reported to have decided to establish an endowed chair in Indian studies.

The CSIS, whose projects have often been the cornerstone of American policy, said that the chair "will support a distinguished specialist who will analyse political and economic developments in India." Mr Douglas Johnston Jr, CSIS's executive vice-president and chief operating officer, said that the "telling difference," between a chair at CSIS and an Indian chair in some universities, "will be the policy impact we will have." Mr Johnston said that "we see India as a formidable player on the world scene in the years ahead."

The CSIS said that "in addition to its internal affairs, India's relations with other countries of the sub-continent and with the US will be important research components of the CSIS's Indian chair." The proposal said that the specialist "should have a demonstrated capacity for the kind of interdisciplinary research that will enable CSIS to make a significant contribution to the study of India's role in the future regional and global order."

Acknowledging that "of increasing significance is India's role in international trade and commerce," the proposal said "CSIS Indian chair will represent a source of major expertise in understanding the internal dynamics of India's economy and its potential in the global economy."

It said that through the establishment of the chair on Indian studies, the CSIS hoped to become "an important source of policy analysis on this poorly-understood but immensely important country and focus greater attention with the

Washington policy community on South Asia as a whole."

The proposal noted that the "neglect of India in the context of American strategic studies is especially unwarranted." Thus the establishment of an endowed chair in Indian studies, it said, "will help remedy the information and con-

ceptual vacuum surrounding subcontinent policy issues in Washington." The proposal said that the chairholder will be drawn from prominent scholars and practitioners in the field.

It said that the establishment of the chair "will require an endowment of \$3 million. The CSIS, considered a leading public policy research institute in international affairs, provides policy makers with a strategic perspective on issues relating to international economics, politics, security and business.



### MANAGEMENT ADMISSION (PGDBM)

CENTRE FOR MANAGEMENT DEVELOPMENT, MODINAGAR-201204, INVITES APPLICATIONS FOR ADMISSION TO ITS TWO-YEAR FULL TIME PGDBM PROGRAMME (1993-1995) APPROVED BY ALL INDIA COUNCIL FOR TECHNICAL EDUCATION (A STATUTORY BODY OF GOVT OF INDIA).

**Eligibility :** Graduate Degree of a Statutory or Deemed University in any discipline with a minimum of 50% marks in the aggregate of all examinations of the Degree Course.

**Selection Procedure :** A written All-India management Aptitude Test (AIMAT) to be conducted on 23.05.1993 at 55 Centres followed by Group discussion and Personal Interview at Modinagar.

**Prospectus/Application :** Available from CMD against payment of Rs 200/- (Rs. 220/- if desired by Registered Post) in cash or through a bank Draft drawn in favour of "Centre for Management Development" on any bank in Modinagar.

**Placement :** CMD has established an efficient Placement Wing which helps students secure suitable jobs in Industry through Campus Interviews. All passed students of CMD have secured gainful positions in large Industrial Houses Banks etc.

**Hostel :** Hostel accommodation is available for male and female students separately.

**Last Date :** 8-4-1993 for procurement of application forms and 23-4-1993 for receipt of completed Applications at Centre for Management Development-Modinagar-201204 (U.P)



## North Zone Youth Festival

The Inter University North Zone Youth Festival was organised at the Rani Durgawati Vishwavidyalaya, Jabalpur on 19-23 January 1993. National Integration was the theme of the five-day festival in which 300 students from nine universities participated.

"The Nation's future depends on the youth for its cultural, emotional and national integration and today's youth can promote happiness, inspiration and love among all individuals through their art which transcends all language and other barriers", observed Mr. Justice Prakash Navlekar who was the chief guest at the inaugural function. Dr. S.P. Kosta, Vice-Chancellor, Rani Durgawati Vishwavidyalaya, who presided, exhorted the students that it was more important to be able to participate in the competition than to win an award. He remarked that true knowledge lay in each one getting acquainted with another and experience the joys and sorrows and that will lead towards establishing National Integration.

The festival opened with Classical Solo Dance in which Jammu University and Punjabi University participated. The sound of Tabla & Ghungroo enveloped the atmos-

phere with Tal and Laya. The performances of Kathak Dance were applauded and the Tal, Laya coordination was remarkable.

In the Solo section of the Western Vocal, Sumit Sharma of Jammu University sang about the 'Maniac' and 'The Boxer', Jagdeep of Punjabi University, presented 'Top of the World' and 'Yesterday once more', while the singer of Kurukshetra University told what it is like "Waiting for you".

In the group category, students of Jammu University reminded of the good old chestnuts 'Lay down Sally' and 'Cherie-Cherie Lady'. Punjabi University, repeated "Top of the World" and sang "Constantly" while Kurukshetra University played the latest hit "Pretty Woman".

Group dances from different universities represented the folk traditions. They won the appreciation of the audience through their tapping feet.

The 'One Act Plays' depicted the present day problems. If one dealt with the liberation of women, the other focused on the plight of young educated men. One was struck by the awareness of the young

generation towards the modern problems. The plays staged included (i) Savaser Gehnu, (ii) Ardha Narish, (iii) Raja Ka Baja, (iv) Natak Nanhi, (v) Trishanku, and (vi) Ek Tha Gadhha Aladad.

In the group songs, the first choral group of Jammu University presented their melodies composed in Rag Malhar that eulogised the splendours and the glory of the rainy season. The variations in rhythm and their striking orange attire added a special quality of their rendering. The second team from Punjabi University presented their traditional Punjabi marriage song which was controlled and coordinated in its varied rhythms. This was followed by the patriotic songs rendered by the teams of Guru Nanak Dev University, M.D. University, Rohtak and the Kurukshetra University. The songs composed in classical style, devoted to glory of India and based on folk rhythms were very much appreciated by the audience.

Mr. Y.D. Dharmadhikari, Ex-Advocate General of MP High Court was the chief guest at the valedictory function presided over by Dr. S.P. Kosta, Vice-Chancellor, Rani Durgawati University.

The Jammu University bagged the overall championship Trophy while the runner's up trophy went to Punjabi University, Patiala.

## North Zone Inter University Youth Festival

### RESULTS

#### A. MUSIC

(a) Classical Vocal Solo	(1) Guru Nanak Dev University (2) University of Jammu	(b) Classical Instrumental Solo (Percussion)	(1) University of Jammu (2) Punjabi University
--------------------------	--	--	---



- |   |                                      |
|---|--------------------------------------|
| (c) <b>Classical Instrumental Solo (Non-percussion)</b> | (1) <b>Guru Nanak Dev University</b> |
|   | (2) <b>University of Jammu</b>       |
| (d) <b>Light Vocal (Indian)</b>                         | (1) <b>Punjabi University</b>        |
|   | (2) <b>Kurukshetra University</b>    |
| (e) <b>Western Vocal (Solo)</b>                         | (1) <b>Punjabi University</b>        |
|   | (2) <b>University of Jammu</b>       |
| (f) <b>Group Song (Indian)</b>                          | (1) <b>Maharshi Dayanand Univ.</b>   |
|   | (2) <b>University of Jammu</b>       |
| (g) <b>Group Song (Western)</b>                         | (1) <b>Punjabi University</b>        |
|   | (2) <b>University of Jammu</b>       |

#### **B. DANCE**

- |                        |                                   |
|------------------------|-----------------------------------|
| (a) <b>Folk/Tribal</b> | (1) <b>Himachal Pradesh Univ.</b> |
|                        | (2) <b>Punjabi University</b>     |
| (b) <b>Classical</b>   | (1) <b>Punjabi University</b>     |
|                        | (2) <b>University of Jammu</b>    |

#### **C. LITERARY**

- |                 |                                  |
|-----------------|----------------------------------|
| (a) <b>Quiz</b> | (1) <b>University of Delhi</b>   |
|                 | (2) <b>University of Roorkee</b> |

#### **D. THEATRE**

- |                         |                                    |
|-------------------------|------------------------------------|
| (a) <b>One Act Play</b> | (1) <b>Guru Nanak Dev Univ.</b>    |
|                         | (2) <b>Maharshi Dayanand Univ.</b> |
| (b) <b>Skits</b>        | (1) <b>Guru Nanak Dev Univ.</b>    |
|                         | (2) <b>Maharshi Dayanand Univ.</b> |
| (c) <b>Mime</b>         | (1) <b>University of Jammu</b>     |
|                         | (2) <b>Guru Nanak Dev Univ.</b>    |

#### **E. FINE ARTS**

- |                                 |                                    |
|---------------------------------|------------------------------------|
| (a) <b>On the Spot Painting</b> | (1) <b>Punjabi University</b>      |
|                                 | (2) <b>University of Jammu</b>     |
| (b) <b>Collage</b>              | (1) <b>University of Jammu</b>     |
|                                 | (2) <b>Punjabi University</b>      |
| (c) <b>Poster Making</b>        | (1) <b>University of Jammu</b>     |
|                                 | (2) <b>Punjabi University</b>      |
| (d) <b>Clay Modelling</b>       | (1) <b>Punjabi University</b>      |
|                                 | (2) <b>Maharshi Dayanand Univ.</b> |
| (e) <b>Cartooning</b>           | (1) <b>University of Jammu</b>     |
|                                 | (2) <b>Kurukshetra University</b>  |

#### **CHAMPIONSHIP TROPHIES**

Music	:	University of Jammu
Dance	:	Punjabi University
Theatre	:	Guru Nanak Dev University
Literary Event	:	University of Delhi
Fine Arts	:	University of Jammu

<b>Overall Championship Trophy</b>	————	<b>University of Jammu</b>
<b>Runner's Up Trophy</b>	————	<b>Punjabi University, Patiala</b>

# Dreams and their Meaning

R. S. Bhatnagar\*

**Yehia Gouda. Dreams and their Meanings in the Old Arab Tradition. Illustrated by Mario Mercier, 471 pp. New York, Vantage Press, 1991. \$18.95.**

*Dreams and their Meanings in the Old Arab Tradition* written by Yehia Gouda and illustrated by Mario Mercier is one of the foremost attempts of our time at presenting the study of dreams and the interpretations in the light of Islamic traditions. Literature is not traceable on such a specific and significant branch of knowledge.

Much has been said on the interpretation of dreams from psychological side. Psychologists like William James, Freud and their followers consider dreams as the suppression of desires. They are the product of our sub-conscious mind. Yehia Gouda deserves appreciation for interpreting dreams and visions from religious and spiritual standpoint. Little has been said on the spiritual and mystical interpretation of our dreams. The muslim mystics in general and the celebrated Sufis of various *tariq* or *Sufi* Orders have given great emphasis on the theoretical and practical implications of dreams seen by the followers of the mystical journey. A dream for the *salik* or the pilgrim on the way to God is an indication of his spiritual progress. The *Pir* or the Divine Master keeps a watch on the dreams of the disciple and thus becomes aware of his inward progress through interpretation of various sorts of dreams. This treatise opens a new chapter in this direction. In many respects the book fills a gap in the reading list of those who are eager

for having a lucid and comprehensive account of spiritual interpretation of dreams based on the enlightenment of soul through revelation of God. Writing on such an abstract and unpopular field of knowledge is a matter of great credit.

Yehia Gouda's explanation of three types of dreams – *rooya*, *ahlam* and the dreams produced by *nafs* is a significant account of dreams. He gives valuable suggestions for having good dreams. The basic rules of interpreting dreams are also provided. The author has given important instructions which should be observed before going to sleep for seeing the dreams of mystical and spiritual character. The biographical notes providing the authentic litera-

ture of the eminent interpreters like Ibn Sireen, Ibn Shaheen Al-Nabulsi, Jaafar al-Sadeq, Abu Said Al-Wa'ez and Al-Dinawari given in the book are helpful for the deep study of the art of interpretation of dreams particularly from religious standpoint.

Yehia Gouda's book contains a long list of dreams and their authentic interpretations in the chapter of 'Concise Dictionary and Encyclopaedia of Dreams'. All essential varieties of dreams with religious, spiritual, mystical, moral, social, psychological and physiological character have been included in the list. This is helpful for one who wants to understand the real meanings and the interpretation of his dream.

The layout of the treatise is extremely clear and well set out in paragraphs. It is a thought-provoking thesis which is a rich contribution to Islamic literature. The book merits inclusion in any reading list for the indepth study of dreams. It is useful not only to the Arabic speaking world but also to the followers of any culture in the name of spiritualism and mysticism.



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**Dr. Devendra K. Modi, (President, CMD)**  
32, Community Centre, New Friends Colony,  
New Delhi-110065.

\*Department of Philosophy,  
University of Allahabad,  
Allahabad-211 002.

# RESEARCH IN PROGRESS

## A list of research scholars registered for doctoral degrees in Indian Universities

### PHYSICAL SCIENCES

#### Chemistry

1. Batham, Shyam Babu Studies on potential antiviral triterpenoidal constituents of some citrus plants. HS Gour. Dr V K Saxena, Prof, Department of Chemistry, Dr Hari Singh Gour Vishwavidyalaya Sagar

2. Bhargava, Neelu. Kinetics of vanadium (V) - oxidation of some amino acids by vanadium (V) in sulphuric acid medium. HS Gour. Dr (Smt) Archana Pandey, Lecturer, Department of Chemistry, Dr Hari Singh Gour Vishwavidyalaya, Sagar.

3. Chaubey, Hari Mohan. Chemical analysis and biological activities of plant products and other organic compounds. HS Gour

Dr J T Rao, Reader, Department of Chemistry, Dr Hari Singh Gour Vishwavidyalaya, Sagar

4. Gupta, Rajesh. A comparative study of gaseous adsorption by zeolite molecular sieves. HS Gour. Prof S P Banerjee, Prof and Head, Department of Chemistry, Dr Hari Singh Gour Vishwavidyalaya, Sagar

5. Gupta, Vipul. Structural investigations of biologically active constituents of some cucumis plants. HS Gour. Dr R N Yadav, Lecturer, Department of Chemistry, Dr Hari Singh Gour Vishwavidyalaya, Sagar

6. Jain, Padam Kumar. Synthesis and biological activity of some compounds derived from heterocyclic ring. HS Gour. Dr S K Shrivastava, Reader, Department of Chemistry, Dr Hari Singh Gour Vishwavidyalaya, Sagar and Dr (Mrs) Savitri Shrivastava, Lecturer, Department of Chemistry, Dr Hari Singh Gour Vishwavidyalaya, Sagar

7. Mukharya, Sapna. Studies on potential antiviral saponins of *Spondias managifera* Willd. HS Gour. Prof V K Saxena, Department of Chemistry, Dr Hari Singh Gour Vishwavidyalaya, Sagar

8. Prasad, V S. Synthesis and characterisation of L C P and molecular composites. HS Gour. Dr C K S Pillai, Regional Research Laboratory, Thiruvananthapuram and Dr C Pavithram, Regional Research Laboratory, Thiruvananthapuram.

9. Roy, Anila. Phytochemical investigations of dalbergia plants. HS Gour. Dr R N Yadav, Lecturer, Department of Chemistry, Dr Hari Singh Gour Vishwavidyalaya, Sagar

10. Shrivastava, Rashmi. Synthesis, characterisation and ion exchange applications of oxide and hydroxide of group IV and V elements. HS Gour. Dr O P Shrivastava, Reader, Department of Chemistry, Dr Hari Singh Gour Vishwavidyalaya, Sagar

11. Tiwari, Nisha. Synthesis of some compounds derived from heterocyclic ring and to evaluate their biological activity. HS Gour. Dr SK Shrivastava, Reader, Department of Chemistry, Dr Hari Singh Gour Vishwavidyalaya, Sagar

12. Yadav, Durgesh. Studies on coordination compounds of metals with selected organic ligands. HS Gour. Dr R K Goutam, Reader, Department of Chemistry, Dr Hari Singh Gour Vishwavidyalaya, Sagar

#### Earth Sciences

1. Karkun, Rajesh. An integrated approach on the hydrogeological regime in a part of Tandula-River Basin, Durg District M P. Vikram. Dr Pramendra Dev, Reader, F-2/11, Vikram University Campus, Ujjain

2. Onkar Singh. Petrological and geochemical studies of coals and associated sediments of Umaria Coalfield, Sone Valley, M P, India. Vikram. Dr K N Singh, Lecturer, School of Studies in Geology, Vikram University, Ujjain

3. Sreelatha, R K. Mineralogy, geochemistry and genesis of kaoline around Kundara, Kerala. Kerala. Dr K K Ramachandran, Head, Division of Environmental Science, Centre for Earth Science Studies, Thiruvananthapuram

4. Sreenivasa Rao, Peddi. Flow stratigraphy and palaeomagnetism of Deccan volcanics around Gujri and East of Pune with emphasis on correlations between Northern and Western Ghat traps. Vikram. Dr S F R Khadri, Lecturer, School of Studies in Geology, Vikram University, Ujjain

5. Singh, Brajesh Kumar. Stratigraphy and palaeomagnetism of a part of Mandu Plateau, Dhar District, M P. Vikram. Dr S F R Khadri, Lecturer, School of Studies in Geology, Vikram University, Ujjain

### BIOLOGICAL SCIENCES

#### Forensic Sciences

1. Agrawal, Vijay. A toxo-analytical study of some tricyclic antidepressant drugs. HS Gour. Dr J D Sharma, Lecturer, Department of Criminology and Forensic Sciences, Dr Hari Singh Gour Vishwavidyalaya, Sagar

2. Dhawara, Harmindar Singh. A toxo-analytical and histopathological study of some organophosphorus pesticides. HS Gour. Dr J D Sharma, Lecturer, Department of Criminology and Forensic Sciences, Dr Hari Singh Gour Vishwavidyalaya, Sagar.

#### Environmental Sciences

1. Mohanan, M. System dynamic modelling for pollution control in a developing context. Kerala. Dr V Nandamohan, Department of Future Studies, University of Kerala, Thiruvananthapuram.

## Microbiology

1. Juliet, John. Study of the biochemical determinants in alcoholics. Kerala. Dr A Remia, Biochemist, Department of Gastroenterology, Medical College, Thiruvananthapuram and Dr M Narendranathan, Prof and Head, Department of Gastroenterology, Medical College, Thiruvananthapuram.

2. Sreedharan, V P. Detailed microbiological studies of bacillus synthesising cyclodextrin - glycosyl-transferase with special reference to alkalophilic, thermophilic species. Kerala. Dr V Thankamani, Scientist, Regional Research Laboratory, Thiruvananthapuram

## Botany

1. Nazarudeen, A. An assessment of the economically important fruit yielding taxa of Western Ghats with special reference to some lesser known species. Kerala. Dr S Seeni, Scientist, Tropical Botanical Garden and Research Institute, Palode and Dr K C Koshy, Scientist, Tropical Botanical Garden and Research Institute, Palode.

2. Punjani, Bhasker Laxmishankar. An ethnobotanical study of tribal areas of District Sabarkantha. N Gujarat. Dr A B Vora, Gujarat University, Ahmedabad.

3. Sreekumar, S. Secondary product synthesis by in vitro root cell cultures of selected plants. Kerala. Dr P Pushpangadan, Director, Tropical Botanic Garden and Research Institute, Palode

4. Sudhakaran, M V. Biosystematic studies in hedyotideae and allied tribes, Rubiaceae. Kerala. Dr B Vijayavalli, Department of Botany, University of Kerala, Kariavattom.

## Medical Sciences

1. Awasthi, Shubhini. Development and characterization of stimuli sensitive polymer based hypodermal system (a) of some drugs. HS Gour. Dr S P Vyas, Lecturer, Department of Pharmaceutical Sciences, Dr Hari Singh Gour Vishwavidyalaya, Sagar.

2. Dangi, Jawahar Singh. Perparation and characterization of mixed nickel based systems for some poorly absorbable drugs. HS Gour. Prof V K Dixit, Department of Pharmaceutical Sciences, Dr Hari Singh Gour Vishwavidyalaya, Sagar.

3. Jain, Raj Kumar. Development of liposomal drug delivery system for treatment of leprosy. HS Gour. Prof V K Dixit, Department of Pharmaceutical Sciences, Dr Hari Singh Gour Vishwavidyalaya, Sagar.

4. Jain, Sandeep. Search for some novel 1,3,4 - oxadiazole derivatives for potential biological activities. HS Gour. Dr Pradeep Misra, Lecturer, Department of Pharmaceutical Sciences, Dr Hari Singh Gour Vishwavidyalaya, Sagar

5. Nekhare, Sushama. Development and characterization of liquid membrane based therapeutic systems of some drugs. HS Gour. Dr S P Vyas, Lecturer, Department of Pharmaceutical Sciences, Dr Hari Singh Gour Vishwavidyalaya, Sagar.

6. Sylaja, N. Tissue changes on administration of anticarcinogenic plant extracts. Kerala. Dr Mathew M Oommen, Department of Zoology, University of Kerala, Thiruvananthapuram and Dr Y M Fazil Manickar, Assoc Prof, Department of Surgery, Medical College, Thiruvananthapuram

# THESES OF THE MONTH

## A list of doctoral theses accepted by Indian Universities

### PHYSICAL SCIENCES

#### Mathematics

1. Bandyopadhyay, Sudeshna. On some radiation and diffraction problems in the linearized theory of water waves. Calcutta

2. Basant Ram. Estimation of fertility parameters in rural area in Jammu. Jammu. Dr R Tiwari, Reader, Department of Mathematics, University of Jammu, Jammu.

3. Gupta, Virendra Kumar. A study on the degree of approximation of a function by fourier orthogonal expansion. Vikram. Dr Ashutosh Pathak, Lecturer, Department of Mathematics, Vikram University, Ujjain

4. Guru, Kavita. Some problems on summability methods. H S Gour. Dr S K Shrivastava, Department of Mathematics, Dr Hari Singh Gour Vishwavidyalaya, Sagar.

5. Hajra, Mrityunjay. Some problems on generating functions of special functions from classical and group-theoretic view point. Calcutta

6. Jain, Rakesh Kumar. Some problems related to fixed point theory. H S Gour. Dr R K Jain, Department of Mathematics, Dr Hari Singh Gour Vishwavidyalaya, Sagar.

7. Kumar, S. Bunch resolution: A nonclausal inference mechanism. Sathya Sai.

8. Modak, Madhav Ramchandra. Lattice paths and enumeration of indexed monomials. Panjab.

9. Mohammad Anif. Motions in the field of two rotating magnetic dipoles. Jamia. Dr Z A Taqvi, Department of Mathematics, Jamia Millia Islamia, New Delhi and Dr K B Bhatnagar, Department of Mathematics, Dr Zakir Hussain College, University of Delhi, Delhi

10. Nema, Harceah Kumar. Some problems on approximation theory. H S Gour. Dr K Qureshi, Principal, Govt Girls Degree College, Narasinghpur.

11. Patel, Birendra Narayan. Some problems in general topological spaces: Associated with some new separation axioms. H S Gour. Dr K K Dube, Department of Mathematics, Dr Hari Singh Gour Vishwavidyalaya, Sagar

12. Prasad, Bishnu Dev. The motion of  $(2+V)$  bodies when the primaries are taken as two magnetic dipoles. Jamia. Dr Z A Taqui, Department of Mathematics, Jamia Millia Islamia, New Delhi and Dr K B Bhatnagar, Department of Mathematics, Dr Zakir Hussain College, University of Delhi, Delhi

13. Sankaran, P G. Characterization of probability distribution by reliability concepts. CUST. Dr N Unnikrishnan Nair, Prof, Department of Statistics, School of Mathematical Sciences, Cochin University of Science and Technology, Kochi

14. Radhika, D. On congruence properties of certain classes of arithmetic functions. Osmania.

15. Raji Reddy, Sheelam. Computational techniques in transient magnetohydrodynamic, dusty viscous and run-up flows. Osmania

16. Ramachandran, G. Groups, graphs and generalized colouring. Bharathidasan. Dr N Sridharan, Reader, Department of Mathematics, Alagappa University, Karaikudi

17. Ravi Kishore, Malla Pragada Venkata Kanaka. Separation axioms in fuzzy topological spaces. Andhra

18. Sharma, Bhawani Shankar. Some problems on fixed point theorems. H S Gour. Prof S K Shrivastava, Department of Mathematics, Dr Hari Singh Gour Vishwavidyalaya, Sagar

19. Soni, Ganesh Kumar. On fixed point theorems. H S Gour. Dr K C Shrivastava, Department of Mathematics, Dr Hari Singh Gour Vishwavidyalaya, Sagar

20. Srinivas, P D N. Existential and numerical study of implicit differential equations. Sathya Sai

21. Tiwari, Poonam. Congenerators and relative projective modules. H S Gour. Dr R S Singh, Department of Mathematics, Dr Hari Singh Gour Vishwavidyalaya, Sagar

#### Statistics

1. Acharya, Sarat Kumar. Upper and lower functions for diffusion processes and their applications. Sambalpur. Prof M N Mishra, Post Graduate Department of Statistics, Sambalpur University, Jyoti Vihar, Burla

2. Sasry, Vaddi Papayya. Some heterogeneous queueing models with two state input source. Andhra.

3. Singh, K K. The applications of neighbour type designs, their analysis and methods of constructions. Devi Ahilya. Dr Bhagwan-das, Department of Statistics, Devi Ahilya Vishwavidyalaya, Indore

4. Sinha, Pankaj. Robustness of statistical prediction to non-normal prior distributions. Delhi

#### Physics

1. Aghamkar, Praveen. Steady state nonlinear optical effects in semiconductors. Barkatullah.

2. Anand, Abhai. Electro optic effect in  $\text{LiNbO}_3$  and  $\text{LiTaO}_3$ . Garhwal. Dr N S Panwar, Burla College, Srinagar

3. Bagchi, Joydeep. A study of radio emissions from clusters of galaxies: cD galaxies and the very steep spectrum sources. IISc

4. Choudhary, Brajesh Chandra. A study of high transverse momentum direct photon production in interactions of 500 GeV/c pions and proton beams on a beryllium target. Delhi.

5. Dash, Gananath. Studies on the effect of some physical process on microwave properties of impact diodes. Sambalpur

Prof S P Pati, Post Graduate Department of Physics, Sambalpur University, Jyoti Vihar, Burla

6. Dattamajumdar, Nandini. Ion solid interaction study by SIMS technique. Calcutta

7. Deomurari, Kailash Chandra. Iterative solution of linear systems. Jammu. Dr R K Singh and Late Prof Y Prakash

8. Dhanaraj, G. Crystal growth and characterization of some non-linear optical materials: LAP, KTP and  $\text{LiNbO}_3$ . IISc

9. Dubey, Vijay Kumar. A study of some mechanical properties of GFRP composites. Durgawati. Dr S C Dutt, Prof and Head, Department of Physics, Rani Durgawati Vishwavidyalaya, Jabalpur and Dr R K Bajpai, Department of Physics, Rani Durgawati Vishwavidyalaya, Jabalpur

10. Garkari, Preeti. Some aspects of wave in stabilities in solid state plasmas. Vikram. Dr S K Ghosh, Asstt Prof, Department of Physics, Vikram University, Ujjain

11. Ghorai, Snehalata. Some studies on wave propagation in magnetized plasma. Calcutta.

12. Gopala Krishna, B. Influence of alkali metal dopants on superconductivity in Bi, Ca, Ca, O system. Osmania

13. Goswami, Ram Puri. Development and study of designs of linear solar concentrators and selective coatings. Jamia. Prof Z H Zaidi, Department of Physics, Jamia Millia Islamia, New Delhi and Dr G D Sootha, Department of Non-conventional Energy Sources, Ministry of Power and Non Conventional Energy Sources, New Delhi

14. Goyal, Navdeep. Electrical and photo electrical properties of some chalcogenide and chalcopyrite semiconductors. Panjab

15. Gupta, Ram Kumar. Some studies on bipolar junction transistor, field effect transistor and metaloxide semiconductor field effect transistors at high frequencies. Durgawati. Dr V K Farakya, Department of Physics, Rani Durgawati Vishwavidyalaya, Jabalpur

16. Gupta, Vinod Kumar. Theory of positron annihilation in solids and surfaces. Vikram. Dr S B Shrivastava, Asstt Prof, Department of Physics, Vikram University, Ujjain

17. Jain, Sandeep Kumar. Investigation of electronic properties of thick films of semi crystalline organic and inorganic systems. H S Gour. Prof A P Shrivastava, Prof and Head (Retd), Department of Physics, Dr Hari Singh Gour Vishwavidyalaya, Sagar

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- (a)     Candidates appearing in final degree Examination in April/May, 1993 are eligible to apply and can take the test provisionally.
- (b)     Reservations as per approved norms provided they satisfy the Selection Criteria
- (c)     Concession of 5 percent in eligibility requirements for SC/ST/BC candidates

Admission will be made on the basis of Test/Interview. All eligible candidates will take a Written Test to be held at different Centres in India on Sunday April 25, 1993.

Application Form and Information Brochure giving details are available at the office of the Department between 2.00 p.m. and 5.00 p.m. on all working days upto March 22, 1993 on submission of crossed Bank Draft for Rs. 120/- for one course; and Rs. 150/- for more than one IN FAVOUR OF REGISTRAR, PANJAB UNIVERSITY, CHANDIGARH. To obtain them by Post, please write to : The Deputy Registrar, Department of Commerce and Business Management, Panjab University, Chandigarh-160 014, enclosing the Bank Draft and a self addressed envelope (29 x 18 cms ) bearing Rs. 6 stamps by March 18, 1993.

Last date for receipt of completed application forms is March 25 1993 upto 5.00 p.m.

**IMPORTANT ANNOUNCEMENT**

Applicants who wish to be enrolled for Ph.D Programme in the Faculty of Business Management and Commerce may apply to the Department by June 30, 1993 on the prescribed form available with the University Cashier on payment of Rs. 10/-. Requests for supply of enrolment form by registered book post be addressed to Secretary, Publication Bureau by enclosing a Bank Draft for Rs. 20/- in favour of REGISTRAR, PANJAB UNIVERSITY, CHANDIGARH.



## COMMONWEALTH SCHOLARSHIP PLAN NEWZEALAND AWARDS 1994

Applications on plain paper as per prescribed format are invited from Indian Nationals for the above mentioned Commonwealth Scholarships for higher studies/research in Newzealand

### 1. NEWZEALAND :

Number of Scholarships - Three

Subject Field -

(a) Soil Science (b) Dairy Technology (c) Geo-Thermal Technology.

**MINIMUM QUALIFICATIONS REQUIRED :** A first class Master's Degree in the subject or allied Fields (Applicant should have completed the relevant qualification within the last five years preceding the year of the application i.e., those obtained Master's Degree in the year 1987 and before are not eligible to apply.

**ESSENTIAL EXPERIENCE :** At least 2 years (a) teaching/research or practical experience on 31st December, 1992 after acquiring the qualifications prescribed above.

**AGE :** Below 35 years as on 1st August, 1993 (Preference will however be given to the candidates in the age group of 26-35 years) Two years Relaxation in age will be given to the candidates belonging to SC/ST candidates other things being equal.

**VALUE :** (a) Travel to and from Newzealand by Air-passage by economy class as arranged by the authorities of the donor country (No provision has been included for the expenses of the dependents) (b) Expenditure on board and lodging, books and other study material, tuition fee, internal travel related to the studies and Medical care will be met by the Newzealand Government.

**N.B. :** 1. Only candidates with 60% of marks and above at the above prescribed qualification are eligible. Where grades are mentioned the candidates must indicate the conversion formula adopted by the University/Institution and should also indicate equivalent percentage of marks. 2. Equivalent foreign degrees will be considered. 3. Each application must be accompanied by attested copies of (a) Certificate of age (b) Marks-sheet of the qualifying Examination (c) All degree/diplomas/certificates. 4. Candidates who have already been abroad for study/training/specialisation either on Scholarship or on their own for a period exceeding six months are eligible to apply only if they have been in India for at least two consecutive years after their return from abroad 5. Applications in the subject field other than those specified above will not be considered 6. Applications of candidates who are abroad will not be considered 7. Candidates must furnish a clear and precise programme of study/research (minimum 500 words) 8. Those who have already done Ph D in India or abroad need not apply. 9. Candidates who do not possess the requisite qualifications need not apply 10. Candidates should have adequate knowledge of Geographical situation, cultural heritage of India and the Donor Country. 11. Documents submitted alongwith the applications will not be returned. Hence candidates are advised to send only the photocopies of the certificates, etc. duly attested 12. Since, these Scholarships are offered by Foreign Governments, applications should invariably be submitted in English only 13. Experience has to be supported by documentary evidence. 14. Candidates who have applied more than twice and were not selected for nomination are not eligible to apply. 15. Employed candidates must send their applications through their employers with a 'No Objection Certificate' They will not be called for interview unless the certificate is forwarded with the application. Application through proper channel should also reach this office by the last date fixed for the purpose. 16. Mere fulfilment of requirements as laid down in the advertisement does not qualify a candidate for interview. Interview letters in a particular subject are sent only to the best candidate in order of merit after their applications are judged by a duly constituted Selection Committee of Experts. 17. Applications received after the prescribed date and incomplete applications will not be entertained. 18. Canvassing in any form will be a disqualification. 19. The Selection Committee's decision about candidate for Interview or selecting a candidate for nomination will be final. **NO REPRESENTATIONS IN THIS REGARD WILL BE ENTERTAINED.**

**LAST DATE :** The candidates should apply for the above scholarship on plain paper (preferably typewritten) with a recent passport size photograph duly affixed, furnishing the details/particulars in the given

format to the Under Secretary, External Scholarship Division (Section ES.4) Department of Education, A-1/W-3 Curzon Road Barracks, Kasturba Gandhi Marg, New Delhi-110001 by March 31, 1993. Applications received late will not be entertained.

### PROFORMA FOR APPLICATION

1. Name of the Scholarship Scheme
2. Subject :
3. (i) Name of the candidate (in Block letters) with full mailing address
- (ii) Full name of Father/Mother/Guardian
- (iii) Marital Status
4. Date of birth and the State to which the Candidate belongs
5. Whether Member of SC/ST (A certificate from the competent authority should be attached).
6. Academic record starting from High School/Higher Secondary (Attested/Photostat copies of Certificates to be attached)

Recent Passport Size photograph duly signed to be pasted here. Without photograph application will be considered incomplete

Name of the University/Board/Instt	Examination(s)	Year of passing	Division/class with position, if any (In case no class is awarded and only grading is done the conversion formula may be mentioned)	Percentage of marks obtained and position if any	Subjects taken

7. Details of professional practical training and research experience specifying the period and number of papers published/previous employment with name and date of employment if any.
8. Nature of the present employment with name and date of appointment/designation and the name and address of the employer.
9. Have you been abroad? If so give full particulars of the country visited and the period of stay. Also mention the date, month and year of return to India (purpose of visit also to be indicated)
10. Proposed programme of study/research and training specifying.
  - (i) The work at present engaged in.
  - (ii) Nature and Programme of Study research/training desired
  - (iii) Future plans/prospect after the proposed studies/research training and
  - (iv) How are these related to the advancement of knowledge of Science and Technology in India.

Place :

Date

Signature of candidate

**NOTE :** Employed persons must send their applications through proper channel. However advance applications will be considered provisionally pending sponsorship by employers provided attested copies of certificates of age and qualifications are attached to advance copy of the applications

davp 92/639



No KU BOA/ADVT/92-93/8940

DATE: 5-2-1993

## ADVERTISEMENT

Applications (Eight Sets) in the prescribed forms are invited for the below mentioned posts in the Post-Graduate Departments, K U Dharwad/ Karwar and Constituent Colleges of Karnatak University, Dharwad so as to reach the 'REGISTRAR, KARNATAK UNIVERSITY, DHARWAD' on or before 22nd March, 1993, by Registered Post A D from duly qualifying Candidates of Indian Nationality

A set of eight (8) prescribed application forms and the Instruction Sheet can be had from the 'DIRECTOR, PRASARANGA, KARNATAK UNIVERSITY, DHARWAD-3' in person on presentation of cash challan for having credited the amount of Rs 32/- to the State Bank of India, K U Campus, Dharwad, or by post duly sending a self addressed 28 X 12 Cms stamped (Rs 5/-) cover alongwith a crossed Bank Demand Draft for Rs 32/- payable to the 'Finance Officer, Karnatak University, Dharwad

Those candidates who had already submitted their applications for the following posts in response to the earlier Advertisements of this University, should necessarily apply afresh

For appointment to the post of Lecturer, the candidate must have obtained 55% marks at Master's Degree in the relevant subjects or its equivalent grade and good academic record

### Details of Vacant Posts with reservations

Name of the Departments and Posts	No of Posts Vacant	Reservation
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### P G DEPARTMENTS DHARWAD/KARWAR

SANSKRIT		
READER	1	ST Backlog
ENGLISH		
READER	1	SC Backlog.
FRENCH		
LECTURER	2	1-SC 1-ST Backlog.
ECONOMICS		
PROFESSOR		
(Economic Theory/ Econometrics)	1	ST Backlog
POLITICAL SCIENCE.		
LECTURER	1	GROUP-C
(Ambedkar Studies)		
PHILOSOPHY		
READER	1	ST Backlog
EDUCATION		
LECTURER	1	SC Backlog.

LECTURER		
(Experimental)	1	ST Backlog.
MUSIC		
LECTURER (Vocal)	1	GROUP-A
COMMERCE		
READER		
(Cost Accountancy)	1	SC
LAW		
LECTURER		
(Junsprudent/ Criminal Law)	1	SC Backlog.
LECTURER	1	SC Backlog
READER	1	GM
(Labour Law)		
STATISTICS		
LECTURER	1	SC Backlog
BOTNAY		
PROFESSOR	1	SC Backlog
CHEMISTRY.		
PROFESSOR	1	SC Backlog
(Physical)		
MARINE BIOLOGY		
LECTURER	2	1-SC, 1-ST Backlog
GEOLOGY		
PROFESSOR	1	SC
COMPUTER SCIENCE		
LECTURER	2	1-ST Backlog
		1-Group-A
PROFESSOR	1	UNRESERVED.

### CONSTITUENT COLLEGES

PHILOSOPHY		
LECTURER	1	SC Backlog
EDUCATION		
LECTURER	1	SC Backlog
LAW		
LECTURER	2	1-SC Backlog
		1-ST Backlog
STATISTICS		
LECTURER	1	SC Backlog
GEOLOGY		
LECTURER	1	ST Backlog
PHYSICS		
LECTURER	1	ST Backlog

### Scale of Pay in the Post-Graduate Department & Constituent Colleges

1 Professor	Rs 4500-150-5700-200-7300	With usual
2 Reader	Rs 3700-125-4950-150-5700	allowances
3 Lecturer	Rs 2200-75-2800-100-4000	admissible
		as per University
		Rules from
		time to time

Knowledge of Kannada is desirable for all the posts

Qualifications for the post of Professors

An eminent scholar with published work of high quality actively engaged in research with 10 years of experience in postgraduate teaching and/or research at the University/ National level Institutions, including experience or guiding

research at doctoral level.

OR

An outstanding scholar with established reputation who has made significant contribution to knowledge

Candidate should have guided atleast one student for Ph.D and that the student should have actually obtained the Ph D before the prescribed date in the advertisement

**Professor in Computer Science:**

- 1) Ph.D. in Computer Science/Engineering with a First class Degree at Masters level (Computer Science).
- ii) Minimum of 10 years teaching/research experience with atleast five years as an Assistant Professor in an established University /College.
- iii) Knowledge of System Design/Data Structures/ Artificial intelligence is required

**Qualifications for the post of Reader:**

Good academic record with a doctoral degree or equivalent published work. Candidates from outside the University system in addition shall also possess atleast 55% marks or an equivalent grade at the Master's degree level

Eight years experience of teaching and/or research including upto 3 years for research degrees and has made some mark in the areas of scholarship as evidenced by quality of publications, contribution to educational renovation, design of new courses and curricula.

**Qualifications for the Post of Lecturer:**

Art, Science, Social Sciences, Commerce, Education, Foreign Languages and Law.

Good academic record with atleast 55% marks or an equivalent grade at Master's degree level in the relevant subject from an Indian University or an equivalent degree from a Foreign University

Candidates besides fulfilling the above qualifications should have cleared the eligibility test for Lecturers conducted by UGC, CSIR or similar test accredited by the UGC.

**Lecturer in Music:**

Good academic record with atleast 55% marks or an equivalent grade at Master's degree level in relevant subject or an equivalent degree from an Indian/Foreign University

Candidates besides fulfilling the above qualifications should have cleared the eligibility test for Lecturers conducted by UGC, CSIR or similar test accredited by the UGC

OR

A traditional or a professional artist with a highly commendable professional achievement in the subject concerned

**Lecturer in Computer Science:**

- a) i) M Tech Computer Science  
OR
- ii) M Sc. in Computer Science 1st or Higher  
OR Second Class  
iii) Master of Computer Application (MCA) more than 55%  
(The later two courses marks.  
should be of minimum  
2/3 years duration)  
OR
- iv) Ph D in applied

Mathematics with a minimum of 3 years of teaching Computer Science at B Tech. MCA. level

- b) Experience in Programming/ handling of Computers or teaching at degree/P.G Diploma level, for persons covered under (a) (i) 2 years of experience in the above for persons covered under (a) (ii) & ( iii)

Candidates who have passed the ELIGIBILITY TEST and other similar test accredited by the U G C. for recruitment to the post of Lecturer, should necessarily enclose the Certificate to that effect alongwith the application forms.

The candidates belonging to the following categories are exempted from clearing the Lectureship Eligibility Test provided they possess a minimum of 55% marks at Master's Degree level

- 1) Those who have passes the NET Examination conducted jointly by the CSIR-UGC for Junior Research Fellowship Award,
- 2) Those who have been awarded M Phil Degree upto the 31-3-1991; and
- 3) Those who have already been awarded Ph D Degrees upto 31-12-1992

Appointment to the posts may be permanent, depending upon the nature of the vacancy and the requirements of the University In such cases, they will be on probation for one/two years according to the rules of the University

Candidates selected for the above said posts, may be posted in the beginning or at a later date to work either at Dharwad or at any of the P G Centre(s) though the posts are shown as existing at a particular place at the time of advertisement

As per Government Order No DPAR 28 SBC 86 dated 12-12-1986 and G O No. SWL 15 BPS 85 dated 17-10-1987 applicant belonging to Scheduled Caste/Scheduled Tribe (Form-1), Group-A (Form-2) Group-B, Group-C, Group-D (Form-3) and Group-E (Form-4) are required to produce the copies of Declaration Certificates in the prescribed form for employment purpose issued by the authorities empowered to issue such Certificates in support of their claims and the copies of School Leaving Certificates alongwith their applications. Such certificates should not have been issued earlier then one year by the concerned authorities empowered to do so

In addition to the posts reserved for Scheduled Caste and Scheduled Tribe preference shall also be given to persons belongs to Scheduled Caste/ Scheduled Tribe in respect of even the vacancies not reserved for them, if in the opinion of the Board, such persons possess suitable qualifications

The entitlement of a person to be eligible for appointment against the quota other Backward Classess shall be determined not just on the basis of caste certificate but rather on basis of a Caste-cum-income Certificate, which would include income of his own together with that of his parents and if either of the parent is dead, of his legal guardian

When the vacancies are reserved for GROUP-A, GROUP-B, GROUP-C, GROUP-D & GROUP-E and the candidates belonging to this Groups are not available the vacancies so reserved shall be filled by Selection of candidates belonging to General Merit

Sympathetic view will be taken for recruitment of Physically Handicapped persons for suitable appointments provided they fulfill the prescribed qualifications and conditions, subject to production of authentic certificate issued by the competent medical authorities.

#### Special Attention:

- 1) incomplete applications will not be considered for the post applied for.

Candidates should enclose the necessary documents as mentioned in the applications and also in support of qualifications/ teaching/ research experience / publications/claiming the benefit of reservation etc.,

In order as required, telling which their applications will be rejected and no further correspondence will be entertained.

Other details such as (Qualifications in detail, good academic records, guidelines and instructions) can be seen in the instructions sheet obtained along with the set of application forms.

BY ORDER  
SD/- (V.V. BADIGER)  
REGISTRAR.

KARNATAK UNIVERSITY, DHARWAD.

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# JAWAHARLAL NEHRU UNIVERSITY, NEW DELHI

## ANNOUNCEMENT FOR ADMISSION-1993-94

The University will hold Entrance Examination for admission to various programmes of study at the following 25 Centres on May 20, 21 and 22, 1993.

Ahmedabad, Bangalore, Baroda, Bhubaneswar, Bombay, Calcutta, Chandigarh, Cochin, Danapur Cantt. (Bihar), Dehradun, Delhi, Gauhati, Hyderabad, Indore, Jaipur, Jammu, Lucknow, Madras, Madurai, Patna, Pune, Ranchi, Shillong, Varanasi and Vijayawada. (The University reserves the right to change centre of examination without assigning any reasons.)

### SCHOOLS AND PROGRAMMES OF STUDY

#### I. SCHOOL OF INTERNATIONAL STUDIES

(i) M. Phil/Ph.D. in International Politics, Organisation, Disarmament & Political Geography; Diplomatic Studies, International Legal Studies, International Trade and Development; South Asian, Central Asian, Southeast Asian & Southwest Pacific Studies; Japanese and Korean Studies, West Asian, North African and Sub-Saharan African Studies, American, Latin American & West European Studies and Soviet & East European Studies

(ii) M.A. in Politics (International Studies)

#### II. SCHOOL OF LANGUAGES

(i) M.Phil/Ph.D. in French, German, Modern Arabic, Russian, Hindi, English, Linguistics including Semiotics, Spanish and Urdu and Ph.D. in Japanese, Chinese, Persian and Modern Western Philosophy.

(ii) M.A. in English, Linguistics, Hindi, Urdu, Persian, Arabic, Chinese, Japanese, French, German, Russian and Spanish

(iii) B.A. (Honours) in Persian, Modern Arabic, Chinese, Japanese, French, German, Russian and Spanish (with entry points both in 1st and 2nd year) Students successfully completing the 3-year B.A. (Hons) become eligible to seek registration to M.A. in the respective language as at (ii) above

#### III. SCHOOL OF SOCIAL SCIENCES

(i) M.Phil/Ph.D. programme is offered by following Centres which have their curricular and research work organised on inter-disciplinary basis with a focus on some major problems of study

Centres: Economic Studies and Planning Historical Studies, Political Studies, Regional Development (Geography, Economics, Population Studies), Social Systems (Sociology), Educational Studies (Psychology, Sociology, Economics and History of Education), and Social Medicine & Community Health

(ii) Master of Community Health (MCH/Ph.D.): Candidates holding MBBS with one year's experience after internship or Master's degree in Nursing with one year's experience in Community Health in Nursing.

(iii) M.A. in Economics, Geography, History, Political Science & Sociology

#### IV. SCHOOL OF LIFE SCIENCES

(i) M.Phil/Ph.D. in areas of interdisciplinary research; Genetic Engineering, Molecular Biology and Genetics, Biochemistry, Plant and Animal Tissue Culture, Development Biology, Cell Biology, Immunobiology, Neurobiology, Microbiology, Radiation and Cancer Biology, Biophysics, Photobiology, Bioenergetics Membrane-Biology, etc

(ii) M.Sc. in Life Sciences: Open to candidates from both Biological and Physical Sciences

#### V. SCHOOL OF ENVIRONMENTAL SCIENCES

(i) M.Phil/Ph.D. in interdisciplinary areas of Environmental Sciences including Biology and allied fields, Chemistry, Geology and Physics

(ii) M.Sc. in Environmental Sciences: An Interdisciplinary course with Physical, Biological, Earth Sciences and Pollution Studies.

#### VI. SCHOOL OF COMPUTER & SYSTEMS SCIENCES

(i) M.Phil/Ph.D. & M.Tech/Ph.D.: The School offers academic programmes leading to the degrees in diversified areas of Computer Science & Technology

(ii) Master of Computer Applications (MCA): 3-year programme opened to candidates with adequate competence in Mathematics

#### VII. SCHOOL OF PHYSICAL SCIENCES

(i) Ph.D. in Physical Sciences research and teaching in border line areas of Physics & Chemistry, the emphasis being on topics of Chemical Physics, Condensed Matter Physics, Non-equilibrium Statistical Mechanics, Stochastic Processes & Nonlinear Dynamics. Experimental areas include magnetism, Nonlinear optics and Light Scattering

(ii) M.Sc. in Physics: Open to candidates who have B.Sc. in Physics, Chemistry or Mathematics

#### VIII. CENTRE FOR BIOTECHNOLOGY

Ph.D. Research Areas: Plant Molecular Biology; Protein Engineering, Genetic Engineering related to Nitrogen Fixation, Molecular Basis of Infectious Diseases, Molecular Immunology, Protein Stability, Conformation & Folding and Bioprocess Optimisation

RESERVATION OF SEATS: 22.5% (15% for SC and 7.5% for ST) and 3% seats are reserved for SC, ST and Physically Handicapped candidates respectively

#### HOW TO APPLY

Application form together with detailed instructions including eligibility conditions can be had either personally on cash payment of Rs. 20/- per set between 9.30 A.M. to 12.30 P.M. & 2.00 P.M. to 5.00 P.M. on all working days (Monday to Friday) or by post by sending crossed Indian Postal Order for Rs. 40/- payable to JAWAHARLAL NEHRU UNIVERSITY, NEW DELHI for one set of form and postage alongwith a self-addressed unstamped envelope of 28 cms x 20 cms size to THE DEPUTY REGISTRAR (ADMISSIONS), JAWAHARLAL NEHRU UNIVERSITY, NEW DELHI-110067. A maximum of two additional forms of same level of programme @ Rs. 5/- each can be had with one Instruction Booklet. Money Orders are not accepted. There being different forms and Instructions Booklet for different level of programmes i.e. (i) M.Phil/Ph.D., M.Tech/Ph.D. & M.C.H./Ph.D., (ii) M.A./M.Sc./M.C.A., and (iii) B.A. (Hons) in Foreign Languages, candidates should clearly indicate in their request as well as on the top of the self-addressed envelope the name of the programme for which the form and Instruction Booklet is required. A candidate can apply for more than one programme by filling up separate application form for each programme.

ISSUE OF FORMS: FEBRUARY 10 ONWARDS; & UPTO MARCH 29, 1993 (IN PERSON), AND MARCH 24, 1993 (THROUGH POST)

LAST DATE FOR RECEIVING COMPLETED FORMS: APRIL 2, 1993.

NOTE: 1. Candidates who are due to appear in the respective qualifying examination prescribed for eligibility for admission to a particular programme are also eligible to sit in the entrance examination as per conditions laid down in the Instruction Booklet.

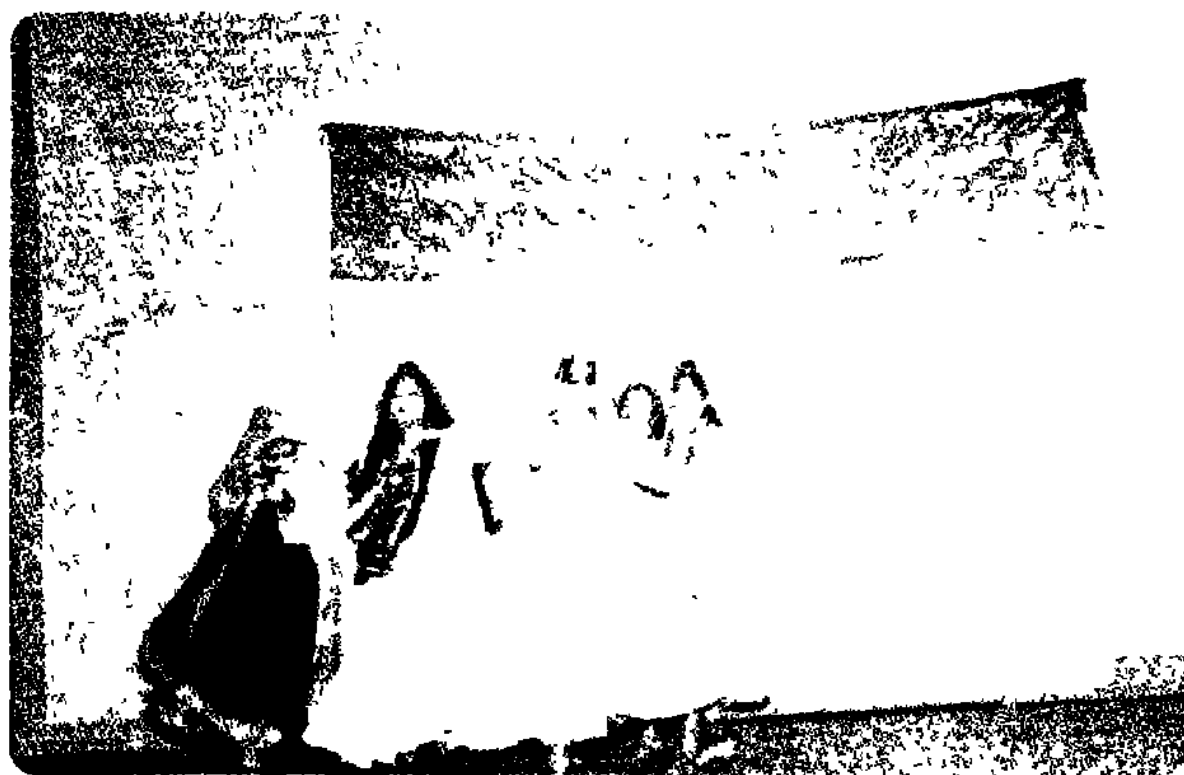
2. Announcement for admission to Direct Ph.D. Programmes and Part-Time (Foreign Languages) courses will be notified separately in May, 1993.

## VIZZY TROPHY



*Shri Ashok Kumbel, Treasurer, Tamil Nadu Cricket Association, presenting the trophy to the winning team*

## YOUTH FESTIVAL



*Folk Dance by Chaudhary Charan Singh Haryana Agricultural University, Hisar.*